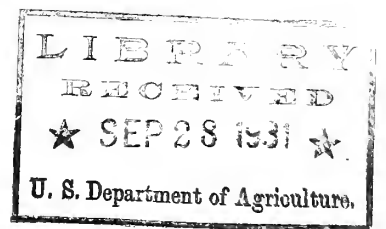


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P. B. MINGEE & SONS
1915

CATALOGUE
OF
CLOVER GRASS FIELD
& VEGETABLE GARDEN
SEEDS
6

103 MARKET AND
4 NORTH FRONT STREETS
PHILADELPHIA

1837

1915

MINGLE'S SEEDS

FOR SPRING SEEDING 1915

The firm of P. B. Mingle Co. has been engaged in the seed business at the old stand, No. 103 Market Street and No. 4 North Front Street, uninterruptedly since 1837, and is well known among its patrons as

HEADQUARTERS FOR CLOVER AND GRASS SEEDS,

being the largest handlers in this State.

Strict, personal application to the details of so large a business has earned them a valuable reputation as thoroughly reliable seedsmen, whose representations as to the quality of the goods they offer can implicitly be relied upon.

In addition to the principal lines above referred to they carry also, for the convenience of their customers, a full line of the **BEST STANDARD VEGETABLE SEEDS AND SUNDRIES**. See catalogue pages 16 to 40.

TERMS OF SALE—Cash with order.

REMITTANCE—May be made by draft on New York or Philadelphia, postal money-order, check, or cash by Express or registered mail.

PERSONAL CHECKS from unknown patrons will be cashed before order is executed.

POSTAGE—We pay postage on 5c. and 10c. packets of Garden seeds. Packages of 50 lbs. and under can be sent by parcel post. Postage in First Parcel Post zone (50 miles), is 5c. per lb., and 1c. extra for each additional pound. In Second Postal zone (100 miles), 5c per lb., and 2c. extra for each additional pound. When, owing

to bulk or weight, seeds cannot be sent by mail, we deliver free to express or freight stations in Philadelphia, the purchaser paying all other transportation charges.

PROMPT ATTENTION—Anticipating the wishes of our customers, we give orders our prompt attention on the day they are received, and if for any reason, delay is unavoidable, we send prompt notice.

WARRANTING SEEDS—It is a well-known fact that unfavorable weather (cold and wet, or hot and dry) has an unfavorable bearing on the germination of seeds, causing partial or complete failure of the crop; or the seeds may be, and frequently are, destroyed by insects of various kinds; therefore, while we exercise the greatest care to have all seeds pure, reliable and true to name, our seeds are sold without any warranty, expressed or implied, and without any responsibility on our part as to results of crop. If the purchaser does not agree to these terms the seeds are at once to be returned to us.

OUR CUSTOMERS coming to the city, encumbered with overcoats, satchels, or bundles, have long found our store a convenient stopping place to leave same until their return from a shopping tour. This feature of our business is still in full swing and we shall be but too glad to continue accommodating our friends in this way, whenever the occasion may arise.

We invite an early transmission of your order for seeds.

Market Gardeners and Truckers requiring large quantities will be given special quotations on same upon submitting us their orders.

Address plainly,

P. B. MINGLE CO.

103 Market Street

PHILADELPHIA, PA.

PHONES:

BELL, Market 1209

KEYSTONE, Main 49780

INDEX

	PAGE		PAGE
Bird Seeds	11-12	Incubators	40
Clover Seeds	1-2	Insecticides	12-13
Dog Feeds	11	Pigeon Feed	10-11
Fertilizers	13	Poultry Feed	9-10
Field and Forage Seeds	5-9	Quantity to Sow	39
Flower Seeds	38	Table of Weights	39
Grass Seeds	3-5	Vegetable Seeds	14-34
Horses, Cattle, Etc.	11		

After March 1st, 1915, we are not bound by the prices quoted in this catalogue, Customers ordering after that date should submit us their orders for latest quotations.

CLOVER SEEDS

THE CLOVERS AS SOIL IMPROVERS—Like other leguminous plants, the clovers draw largely for their sustenance from the atmosphere, gathering nitrogen and other constituents required by cultivated crops; their roots penetrate deeply, drawing from the subsoil, thus acting as a soil improver, and not only increasing the productivity of the land, but putting it in better condition than before. It would be vastly better if, instead of leaving these lands unoccupied, they were sown in clovers. In this way farmers would not only get a crop of forage, but the land would be very much improved by this crop being grown on the soil. Clover, intelligently used, is the farmer's best friend, not only furnishing most nutritious feed, but restoring fertility to wornout lands. It is strongly to be recommended, however, that clover be used in a rotation of crops and not grown successively on the same fields. A top dressing of 200 pounds of land plaster to the acre on clover in the spring improves the growth wonderfully.

ALFALFA—Within the past few years alfalfa has grown rapidly in favor, proving its superiority to all clovers and other natural fertilizers, until today it stands without a peer in profitable results and in its virtues as a sub-soiler and fertilizer. It is well named "the silent sub-soiler."

As a rule, alfalfa thrives best on a sandy loam with porous sub-soil, or in other words, alfalfa will thrive and yield rich, bountiful crops of hay and seed on any soil that will grow corn.

No matter how heavy it rains, or how deep the snow falls, or how wet the spring or winter is, if the soil is well drained it will flourish through all, and yield three to four cuttings each season. Its roots bore down silently into mother earth until they reach a depth of about twenty feet: thus storing up nitrogen, and when these roots decay they leave not only a generous supply of fertility for any desired crop, but millions of openings in which air and rains find their way and help to constitute an unfailing reservoir of wealth upon which the husbandman can draw with little fear of protest or overdraft. It succeeds best on soil containing an abundance of lime. Some lime is absolutely necessary to success with it. Therefore, if the soil is deficient in this respect it will pay the farmer to use some on his alfalfa fields.

One of the strong points in the manurial values of clover is its capacity to absorb and store up nitrogen in the soil for the use of other plants, especially wheat. Large quantities are contained in the earth and air, and clover absorbs and fixes this substance more than any other plant.

Alfalfa should be cut earlier in its stage of growth than other grasses, when about one-tenth in bloom being the best time to cut. Early cut hay is much the best for cattle and horses, as has been shown by feeding trials. Do not cut too much at once, for if you allow the hay to get wet it loses one-half its value for feeding purposes.

The best method we have found for cutting alfalfa is to mow and let it wilt enough so that the rake will gather it up clean and let it cure in the winnow. When cured in this manner, it is very important that there be ample facilities for putting it in the stack as rapidly as possible, otherwise it will become too dry and the best part

of the hay, which are the leaves or foliage, will be lost in handling, especially if it has to be drawn from the field on wagons. **Per bushel (60 lbs.) Market Price**

How to Sow Alfalfa—When alfalfa is sown in the spring it is generally considered best to plow the land in the fall, provided, however, the land will not blow during the winter, otherwise the land should be plowed very early in the spring, and worked until there is a solid seed bed. The preparation of the seed bed is an important point. It should be prepared as thoroughly as for a garden plot, plowing deep early in Spring, and working the soil until seed time with harrow and roller, until it is thoroughly pulverized. This working will kill many of the weeds. If weeds spring up before the alfalfa gets a good start, mow them down before going to seed, but after the alfalfa gets well established it will easily crowd them out. The land should be harrowed after each rain to destroy all seed growth and reduce the soil to the finest possible tilth.

As it is very difficult to reseed patches in an alfalfa field, it is advisable to use a generous amount of seed, say twenty pounds per acre. If the soil is properly prepared, a less amount will do. The seed may be sown broadcast or with a drill.

Usually the second crop is the best for seed and should be cut when all the seed pods have turned brown. Cut with a self-rake reaper, if possible, and let it lie until thoroughly dry, and then handle with a barley fork or sweep rake that will carry the bundles without dragging. This will avoid shattering the seed.

Avoid stacking, if possible, as stacks take water easily, which is liable to cause the seed to turn dark in color. Thresh with a clover huller or threshing machine in field.

Alfalfa Hay—Can the Farmers in the East Produce the Crop and Get Profit From It?

The possibilities in the reduction of feed bills from the free use of alfalfa hay or the same ensiled have hardly begun to be exploited yet. The exportation of bran and preparation of many other substitutes of less or doubtful character make it still more desirable for some good substitute to be produced on the farm, at small cost. This because wheat bran is likely to remain a high-cost by-product while the substitutes are put together for profit, and not particularly to reduce the cost of the food combination to the consumer.

In alfalfa, however, a very low cost is combined with the highest digestibility. That live stock are partial to well-made alfalfa hay may be easily demonstrated, if any man doubts, by trying it with animals which have not been accustomed to feed on it.

During the first few months of its life alfalfa may be regarded as a tender plant, both as regards cold and drought. After it has passed through its first summer, alfalfa is extremely resistant both to cold and to drought.

Alfalfa hay is extremely valuable for dairy cows. Its price in Central Nebraska varies, but ranges from \$5 to \$10 per ton. A few Pennsylvania farmers have had it shipped east, where it costs \$17.00 per ton, or about \$2.00 per ton more than bran. You can imagine the benefit to be derived by raising it yourself. Why not try it?

Cutting Alfalfa—One of the strongest reasons why alfalfa should be grown in the place of other forage grasses is the fact that a small tract of land, when once set in alfalfa, will produce as much forage as four or five times as much land in any other grass. Timothy, as is well known

may not be cut more than once in a season and when it is cut seldom yields more than half as much hay as a single cutting of alfalfa. The latter crop can be cut four or even five times in a season, and a single acre has been known to yield ten times as much hay in a single year as an adjoining acre of timothy. Sometimes it is best not to cut it the first year, unless there is a big growth, as there is some trouble in getting it through the first Winter in the north. For this reason it should not be cut close, or else it should be covered with some coarse litter in the first Winter. Alfalfa suggests intensified farming, and the best of it is that the ground is actually growing better and more fertile from year to year while yielding these enormous crops.

ALSIKE, OR SWEDISH CLOVER—This is somewhat similar in growth and appearance to Red Clover, but it is hardier and stands cold weather better than Red Clover, and where conditions of soil and lateness of seeding make any possibility of winter-killing, it is advisable to sow Alsike Clover, or at least to sow it in mixtures with other clovers. It is more suited to our mountainous sections than to the coast regions, and it succeeds better on stiff or clay soils than on lighter lands; may be cut several times in a season; it is perennial, and its long, strong fibrous roots take a firm, deep hold on the soil, preventing washing away of the extra earth from hillsides. It produces superior pasturage, and is much liked by cattle; grows well on any soil; stalks are fine and palatable, blossoms globular, sweet and fragrant, and much liked by bees. It is well adapted for sowing with Timothy or Herds Grass, as it matures with these crops, flowering a little later than the Red Clover. The blooms are not quite as large as the Red Clover, and are of a light pink or flesh color. Sow in Spring or Fall, at rate of about twelve pounds per acre. **Per bushel (60 lbs.) Market Price**

CRIMSON OR SCARLET CLOVER—Or more commonly called Scarlet, Italian or German Clover, is an annual of French origin, makes a growth from 20 to 30 inches high, has a bright crimson blossom from 1½ to 3 inches long, and when in full bloom with its luxuriant growth of green foliage and its crimson bloom, is a thing of beauty. It is a winter crop, must be sown (12 to 15 lbs. per acre) in July, August and September of each year from which the spring following can be cut for soiling, by the 20th of April; for Ensilage and hay by the 8th of May, and for seed crop by the 25th of May. It will produce on ordinary soil 12 to 15 tons of green food per acre, 1½ to 2½ tons hay per acre, and 2 to 12 bushels seed per acre. Ploughed under as a manurial crop it is worth as a fertilizer \$30 per acre. Experiments at the Delaware Experiment Station, have shown that \$1 invested in seed per acre added 24 bushels corn, while \$1 worth of nitrate soda per acre increased the yield of corn only 6 bushels.

This plant provides a good pasture before other crops are available. An early pasture is not only valuable for food contained in it, but also because it helps to insure proper feeding and to prevent too early use of other and later pasture. The crop when 6 inches high contained over 1,300 pounds of digestible food per acre, sufficient to properly nourish 12 cows for one week. When sown in July and August it furnishes excellent pasture in December, can also be pastured some in early spring without injury to either hay or seed crop. When Red Clover failed to give a good stand or blighted on wheat stubble, the stubble can be harrowed over and Crimson Clover sown, which will more than make up the loss of the Red Clover. Crimson Clover weighs sixty pounds to the bushel. Ten to fifteen pounds are necessary to seed an acre properly, and after sowing the seed it should be covered by harrowing with a light harrow.

It makes an abundant food of highest quality. As pasture, stock prefer it to other grass. As a soiling crop or for Ensilage it cannot be excelled, and for hay, stock not only have a decided preference for it, but they thrive remarkably upon it.

The Delaware Experiment Station sums up its uses as follows:—

1. To Plow down for Green Manure.
2. For Silage.
3. For Soiling.
4. For Haymaking.
5. For Seed Production.
6. For Eradication of Weeds.
7. For Reduction of Expenses in Cultivating Orchards.
8. For Winter and Spring Pasture.
9. As a Protection for Falling Fruit in Orchard.
10. For Binding drift Soils and for preventing Washing on Hill Sides. **Per bushel (60 lbs.) Market Price**

MAMMOTH, SAPLING OR PEA VINE CLOVER—This is similar to Medium or Common Red Clover both in the appearance of the seed and its habit of growth, the difference being that it usually grows larger and is later maturing. It is considered superior as an improver on account of the extra growth. It is a good variety for thin soils, or to seed with Timothy, meadow Fescue or Herds Grass or Red Top, as it matures about the same time as these grasses. Is best adapted for ploughing under as green manure; it grows five or six feet high, has large, coarse stalks, which are not liked by cattle. It is not ready to cut for hay until long after the common variety, and when cut leaves the ground bare, making no second growth. The appearance of the seed of this is identical with the Red Clover, and on this account it is impossible to distinguish any difference between the two by the appearance of the seed. We always obtain our supplies from reliable sources, but in this, as in all other seeds, we give no warranty in any way, simply using every reasonable care to supply Mammoth, or Sapling Clover as ordered. Sow ten to twelve pounds per acre by itself, or with Timothy six pounds of Clover and eight pounds of Timothy will give a liberal seeding. **Per bushel (60 lbs.) Market Price**

MEDIUM, OR COMMON RED—This is the most important of all varieties of Clover for practical farm purposes; makes excellent pasturage, and fine hay crops when sown with Timothy, Orchard and other grasses, as the latter ripen about the same time. It is one of the best fodders for milch cows or sheep, and improves the land by adding humus to the soil.

It is a perennial, growing to a height of 1½ to 2 ft., yields crops several years from one seeding, and on good land, yields two to three cuttings annually. It should be cut for hay when in full bloom.

Sown by itself sow, either in Fall (July 1st to Sept. 5th) or in Spring (Feb. 1st to April 15th) at the rate of twelve to fifteen pounds per acre, according to nature of the soil. **Per bushel (60 lbs.) Market Price**

SWEET, OR BOKHARA—Frequently used as a forage or semi-improving crop, and is particularly valuable for thin lands, and to sow on hillsides that are liable to wash. It also gives the inoculation for the best success with alfalfa.

For feed or forage it should be cut when quite young, for when it gets old, cattle do not relish it, as it is then not of high nutritive value. It is also largely used for sowing for bees. **Per bushel (60 lbs.) Market Price**

WHITE DUTCH CLOVER—A small, low growing variety, with creeping stems; mixed with Blue grass or Perennial Rye Grass, or Timothy, it makes a permanent pasture of great value. It is very largely used in lawn and pasture mixtures, and is indigenous to the soils throughout this section. It makes a small, close, compact growth, covering the ground like a carpet. Succeeds and does well all throughout the North. Its blossoms are round, white, tinged with red, and sweet scented; stems fine and palatable, with numerous leaves of bright green color, blotched with white. Sow either in the Spring or Fall. When sown by itself, sow at the rate of ten lbs. per acre. It is better, however, sown in mixture with other grasses. **Per bushel (60 lbs.) Market Price**

GRASS SEEDS

BLUE GRASS—Perennial. Height, 10 to 15 inches. This valuable grass is suited to a variety of soils, from an average dry one to moist meadows, and makes an excellent pasture grass, producing a most nourishing food for cattle, retaining its qualities till a late period in Winter and further South affording abundant food during the Winter. It is very productive, unusually early, and presents a beautiful green appearance in early Spring, while the other grasses are yet dormant. It makes a splendid lawn grass, forming a thick turf, and being of very even growth. Kentucky Blue Grass also makes hay of excellent quality, but the yield for this purpose is not equal to some other grasses. In connection with White Clover it affords a fine and close lawn; for this purpose an extra quantity of seed must be used, two and one-half bushels Blue Grass and six pounds of White Clover per acre. If sown by itself, either in Spring or Fall, 40 to 50 pounds per acre are required. **Per bushel (14 lbs.) Market Price**

CREEPING BENT—This grass somewhat resembles the Herds or Red Top Grass in appearance and growth, and is considered by many as equal to or superior to the latter. Is excellent for moist locations. It has creeping roots holding tenaciously to the soil, and is therefore valuable in lawn mixtures, resisting tramping.

When sown alone use 25 to 30 lbs. per acre. **Per bushel (16 lbs.) Market Price**

EMBANKMENT GRASS—This mixture is intended for terraces, slopes, and railway embankments, and is made up of the best soil binding as well as slender rooted varieties, to secure a rich green and substantial turf. **Per bushel (15 lbs.) Market Price**

GREEN GRASS—This is the grass "par excellence" for lawns, making a fine close surface of dark green velvety color. It is very sensitive to good treatment, and will in most cases drive out the other grasses and take possession of the soil. Should be sown not less than two bushels per acre. **Per bushel (15 lbs.) Market Price**

HARD FESCUE—A sub-variety of Sheeps Fescue, growing about 2 feet high. It is a small, even, tuft-forming grass with narrow blades and still finer bottom leaves of a deep green color. It thrives on both medium and light soils, and is frequently used in lawn mixtures. **Per bushel (12 lbs.) Market Price**

HERDS OR RED TOP GRASS—A permanent and very hardy native perennial grass, succeeding best on moist land, making a good pasture when fed close; is valuable for low, wet meadows, producing large crops of good hay. It accommodates itself to a variety of soils, however, even to quite dry situations, and stands our hot climate admirably. It is, perhaps, the most permanent grass we have. It remains green for the greater part of the year; sown with Timothy and Red Clover, its stems form a very close matting turf, not affected by trampling, and of fair quality when not allowed to go to seed. Sow $1\frac{1}{2}$ to 2 bushels per acre. **Per bushel (10 lbs.) Market Price**

HERDS OR RED TOP—Fancy Recleaned—This is the pure seed of Herds or Red Top with the lighter seeds and chaff screened out, and therefore sells at a much higher price. We furnish extra clean stock only. **Per bushel (32 lbs.) Market Price**

ITALIAN RYE GRASS—When sown alone early in Spring it thrives quickly and can be mowed twice the same year and produces fine fodder. The Italian Rye Grass, being an annual, is preferable to the Perennial, where a one year's stand only is required, but if the field is to stand over the second year we would prefer the Per-

ennial, as it is stronger, but, on the other hand, the Italian gives larger yields, and is less hard and wiry. **Per bushel (20 lbs.) Market Price**

Fertilizing—After the ground has been well prepared, apply well-decomposed manure, pulverized and applied evenly, good superphosphate, or pure ground bone meal.

MINGLE'S FINEST VELVET LAWN GRASS—The making and keeping of a lawn depends largely upon the thorough preparation of the soil before the seed is sown, as a good soil foundation is one of the essentials. The soil should be well drained and not too rich. The top soil only should be worked to a depth of 4 to 6 inches and none of the sub-soil brought to the surface. Work it thoroughly afterwards with a fine steel rake or fine-toothed harrow, crossing and recrossing to obtain as fine a tilth as possible. If grading is necessary to secure an even surface, first remove and afterwards replace the top soil after the grading is completed. Tree and shrub planting, and laying out flower beds, should be done first. Lawns properly cared for, well fertilized and kept closely mowed, will improve year after year. Weeds should be removed, as far as practicable, before sowing. Lawn grass, to produce a succession of verdure, must naturally consist of a mixture of several grasses, as some are more luxuriant in the Spring, others in Summer, and others again in Autumn. A proper combination of these various sorts is required to create and maintain a perfect, carpet-like lawn, and such is **Mingle's Velvet Lawn Grass Mixture**.

Fertilizing—After the ground has been well prepared, apply well-decomposed manure, pulverized, and applied evenly, good superphosphate, or pure ground bone meal. The latter is best, as it is more desirable and lasting in its effects, and, being not only free from weeds (which stable manure is not), it is also less liable to burn the young grass. Apply it at the rate of 400 to 600 pounds per acre, well raked or harrowed in before sowing.

Sowing—One quart of seed will sow a space 15x20, or 300 square feet. Five bushels are required to the acre, but six bushels would not be excessive, as heavy seeding is required to make a dense plant growth. The seed should be broadcasted on a calm day, preferably in the morning (better just before an expected rain), if in Spring from March 15th to middle of May, or in the Fall in August or September. It should be lightly covered to a depth of not over one-quarter of an inch with a fine rake and afterwards rolled, if the soil is sufficiently dry to prevent the earth sticking to the roller. This compacts the soil around the seeds and better promotes germination. Oats are sometimes sown with the grass in order to shade and protect it during its growth. If used, it should be kept close cut with the grass, and will die out in Winter. As soon as the frost is out of the ground the land should be gone over with a roller. Winter frosts loosen the soil and rolling is necessary to compact it again. Roll frequently. An occasional top dressing with wood ashes is very beneficial. It is always best to freshen a lawn in the Spring with new seed, even if the grass is growing.

Mowing—Frequent and close cutting, after the grass is about three inches high, keeps down the weeds and coarse grasses, and the short cuttings, falling down about the roots, form a mulch which helps to protect the grass from the burning sun of July and August. Applications of bone meal or fertilizer spreads the fine grasses, making a denser growth. Too close cutting in Summer, however, should be avoided, as top growth then protects the plants better from the burning sun. A good top growth is also necessary to protect the roots from Winter frosts. Mow with a lawn mower, permitting the cut grass to remain on the ground, as it strengthens the roots and protects the young grass.

Weeds—Frequently lie dormant in the ground a number of years and make their appearance when the ground is turned up or when the grass is sunburned, and crab grass is likely to make its appearance. Very often the seedsman receives the blame. It is a mistaken idea that weeds in shading the grass protect and aid it in its growth; on the contrary, the grass is much better able alone to cope with the sun's rays than to overpower the rank weeds that appear in every lawn.

Repairing Old Lawns—For bare spots, follow the same procedure as indicated in preparing a new lawn, but using only half the quantity of seed. **Per bushel (15 lbs.) \$3 00; peck 75c.; 4 qts. 50c.; 2 qts. 30c.; 1 qt. 15c.**

MILLET—GERMAN, OR GOLDEN MILLET—A much improved variety, medium early, growing three to five feet high; the heads are closely condensed, though the spikes are very numerous. It is an enormous cropper; should be sown not less than one bushel per acre, if less will grow coarse and woody, in which state it is not relished by cattle. Millet is somewhat difficult to cure, and if it can be matured early enough to get the warm sun of August or September, it will be a decided advantage, but sixty days is usually long enough to grow it for hay. It should be cut for hay as soon as it comes into blossom, the point being to prevent formation of seed. The reputation that millet has for being injurious to stock has largely arisen from the hay being allowed to over-ripen before cutting, a large portion of the seed being matured. It is the seeds rather than the hay that injures stock, since they are very hard and not easily digested. The writer has seen the manifolds of a cow packed full of seed, causing indigestion, from feeding over-ripe hay.

It must be remembered that Tennessee German Millet is the best in the world, being sown and cultivated for seed and compared with seed grown elsewhere the Tennessee grown is purer and better in every way.

After all danger of frost is past, break the land and thoroughly pulverize it, then sow at the rate of one to one and a quarter bushels per acre, and roll or harrow in, and cut when seed are in the dough; cure as Timothy.

For Hay—Either sown together or separate, are unsurpassable both as to quantity and quality of hay. **Per bushel (50 lbs.) Market Price.**

MILLET—HUNGARIAN—This belongs to the millet family, growing less rank, with small stalks often yielding two to three tons of hay per acre; like millet it is an annual, and requires to be sown every season, but will produce a larger return than almost any other crop. Sow one bushel per acre and cultivate like millet; all kinds of stock eat it with avidity.

For Hay—Either sown together or separately, are unsurpassable both as to quantity and quality of hay. **Per bushel (48 lbs.) Market Price.**

MILLET—JAPANESE, OR BARNYARD—Frequently called the Billion Dollar Grass. An excellent fodder plant, growing from 6 to 8 feet high, producing 12 to 20 tons of hay per acre.

It is more tender than most tall varieties of millet. Sow from May 15 to end of July. If broadcast, only 12 lbs. per acre; if drilled, 8 lbs., as it is a remarkable stooler.

It makes fine hay or green fodder, and is much relished by horses and cattle. **Per bushel (32 lbs.) Market Price.**

ORCHARD GRASS—A most valuable grass for pasture or hay land, and on account of its earliness very valuable for permanent pastures. It furnishes the first green bite in the Spring two weeks earlier than most grasses, and when fed off is again ready for grazing in a week, and the last in the Fall, and is quick to recover from close cropping, and even thrives better the more it is

cropped. It is palatable and nutritious and stock eat it readily when green; it will also withstand severe drought, keeping green where many grasses wither, and will endure considerable shade as in orchards and groves.

When grown for hay, more than one crop can be obtained in one season, and where but one crop is taken the aftergrowth is very heavy, and gives splendid and rich pasture till late in the Fall. It will stand drought, and being very hardy, is of especial value for our Northern States, where it does not Winter-kill. It grows in tufts, and is, therefore, not adapted for sowing alone or by itself: but when sown together with red clover, rye grass and tall meadow oat grass, a close and even sod can be had. With clover alone it makes excellent hay, as it blossoms at the same time and they should be cut together; for grazing it has no equal and should be used more than it is; it has a tendency to grow in tufts, which can be prevented by close cropping and heavy seeding. Will grow on almost all kinds of land, but gives best results on deep, rich sandy loam or clay soils. When sown alone, one and a half to two bushels per acre are required; if sown with clover, half that quantity. It is a perennial and will last for years, but its habit of growth unfits it for lawns. **Per bushel (12 lbs.) Market Price.**

PASTURE GRASS SEED (for permanent pastures)—Having given our attention to grasses for this purpose for many years, and after practical results and experience, we have succeeded in creating a mixture which we can highly recommend.

If there is any land you wish to set in permanent pasture, we can supply you with a mixture of any description required or a special mixture admirably suited for this purpose at a very reasonable cost. We are headquarters for all kinds of grass seeds and can save you money on your purchases. Of the ingredients in it, the Timothy and the Clovers come right along and give some feed the year of sowing and a good deal of it the next year, while it isn't till that year that the Blue Grass begins to show. But where the Red Clover begins to disappear and the Timothy gets thin the Blue Grass is just setting up in business and the other grasses are not missed. And when established the Blue Grass is a stayer, and it and the White Clover, which also sticks, makes a combination that is all right.

All authorities agree that for both pasture and hay, best results are obtained from the use of grass seeds in mixture. The reasons are that: First—A number of species will insure a much denser growth than the same number of seeds of one or two species, and prove less exhausting to the soil, since they live to a large extent on different constituents. Second—Seasons that affect some grasses adversely are favorable to other sorts. So that with mixtures a failure is practically impossible, provided, of course, the seed is good. We take great pains in selecting grass seed, in order to secure the highest germination, and our mixtures are based on a full appreciation of the requirements of the different soils for which they are intended. We have made a study of this subject and have grass specialists in our employ and can furnish the seed of the best varieties of grasses mixed in proper proportions for any soil or climate. Sow $2\frac{1}{2}$ to 3 bushels per acre. **Per bushel (15 lbs.) Market Price**

BUILDING UP PASTURES

The grass lands of this country are the neglected parts of our agricultural lands. On almost every farm the permanent pasture is a piece of land that could not be utilized for anything else. We need to begin at the beginning, and build up grass lands the same as we build up for other crops. We need to feed grass lands just as we improve corn lands and make them raise seventy-five bushels of corn per acre, and when such lands are put to grass the returns will be correspondingly increased.

We need to give the grass lands the same degree of careful attention annually that we give to lands for other crops. Grass lands should be given top dressing, and a

harrowing or a discing, or other means of cultivation that will keep the soil in the best possible form. We must have a stand of grass, and grow grass, not weeds. Our grass lands have been so neglected, so over-stocked and over-grazed in dry seasons and dry times, and go into the Winter so closely eaten and so bare that the Winter winds and the freezing will kill out a portion of the grass, and in the Spring we have a half stand of grass instead of a full stand; then the weed crop comes in to take possession—nature provides for covering the soil—the weeds take possession to the exclusion of the grass, and one-half the strength of the land will go to the production of weeds instead of a crop that is valuable for feeding purposes. We want to remedy this in the first place by taking such steps as will insure a full, strong stand of grass, which is just as important to produce a good crop as it is to have a stand of corn to produce a good crop. The grass can be restored without plowing by a reseeded—without putting a plow into it. The best grasses produced in this State, as well as in all parts of the world, are on the lands that produce grass permanently, that are never plowed.

"I am going to sow a grass mixture on old plow land for a pasture, but it is to be used one or two years for a meadow. The tract is not level, there is some high land and a few small sloughs, but it is all plowed. On the low land I will sow red top alone and on the high land I wish to sow a mixture such as red and white clover, blue grass, timothy, red top, alsike and alfalfa with nurse crop." Ans.—On the low land sow solid red top 5 lbs., and alsike clover 3 lbs., on the top land sow timothy 6 lbs., red clover 4 lbs., alsike clover 1 lb., and white clover 1 lb. For the nurse crop sow one-fourth less seed per acre than ordinarily. Per bushel (15 lbs.) Market Price

PERENNIAL RYE GRASS (or English Rye Grass)

—A nutritious permanent grass for meadows and pasture, or for mixing with other grasses for lawns. Does well on sloping banks, as its roots are fibrous and mat-like. Is especially adapted for pastures, as it will endure close cropping, and is of strong, quick and successive after-growth. It produces an abundance of foliage which remains bright and green throughout the season, and for this reason is also much used for lawn grass mixtures. It is also well adapted for permanent meadows, and yields large quantities of very nutritious hay, which is well liked by all kinds of stock. Does well on almost any land, but prefers rich or moist soil, such as will produce a good corn crop. Should be sown in the Spring in quantities of one and a half to two bushels per acre. Per bushel (20 lbs.) Market Price.

PUTTING GREEN GRASS—Our mixture for the putting green is composed of the best hardy, fine-leaved, low growing sorts, maintaining a rich green color throughout the season.

It is also fine for terraces and embankments, although we offer a different and more suitable mixture for the latter. Per bushel, (15 lbs.) Market Price

RED FESCUE—A partly creeping, partly tuft-forming bottom grass, with sparse, narrow blades, useful for both grazing and hay-making purposes. It thrives on all soils, even on dry sandy bottoms, and forms a rather thickly covered turf, leaving very little room for weeds to come through. It is one of the earliest grasses, and comes to the front at a time when young fodder is most looked for. It is useful in small proportion in mixtures for permanent pastures on heavy soils. Its dark-green narrow blades make it useful grass for lawns under shade. Per bushel (12 lbs.) Market Price.

RHODE ISLAND BENT—A creeping variety, but more tuft-forming than the Creeping Bent, and not quite so productive in fertile stems and foliage. Answers very well in lighter soils, but, unlike the Creeping Bent, it has a tendency to get hard and strawy, and when in this condition is not relished by cattle. It should be cut just before or during bloom.

Sow 4 bushels per acre. Per bushel (12 lbs.) Market Price.

SHEEP'S FESCUE—A densely tuft-forming perennial grass, deep-rooted and growing 20 to 25 inches high, with very little small bottom and stalk-forming foliage. Grows well on both medium and light sandy soils, having a preference for the latter. It is of medium maturity, but secondary only in regard to yield and nutritive value.

It thrives in soils too light, or in want of sufficient rainfall for other grasses to make a permanent pasture, and is extremely well adapted for sheep grazing, hence its name. It should be borne in mind, however, that Sheep's Fescue grows hard and strawy very soon, and for best results should be cut just before or when the plants are in bloom.

Sow 2 to 3 bushels per acre. Per bushel (16 lbs.) Market Price.

SHADY LAWN GRASS—A mixture adapted to the requirements of much shaded lawns or in orchards. Will grow a perfect sward where ordinary grass mixtures would fail. Per bushel (15 lbs.) Market Price.

TIMOTHY—This crop is cut for hay, probably surpasses any other grass in cultivation; it thrives best on moist, loamy soils, and is not well suited to light, sandy or gravelly soils; it should be cut just when the blossom falls. Sow either in Spring or Fall, at the rate of 12 pounds per acre, if alone, but less if mixed with other grasses. Per bushel (45 lbs.) Market Price.

PERMANENT GRASSES

We also furnish single grasses, or several kinds in a mixture, for the production of hay or permanent pasture, to suit either heavy or light land; in special mixtures of our own, or other formulas preferred by our own customers, to suit the requirements and nature of the soil.

FIELD AND FORAGE SEEDS

The best and most profitable forage crop for early Spring sowing is Canada field peas and oats, about one and one-half bushels of each to the acre. Sow as early as possible just to make a good seed bed. Both plants love a cool, moist climate, and those conditions usually do not exist late in the Summer. This crop is usually ready to cut for the cows at the end of June or the beginning of July, and what is not fed as a soiling crop is cut before ripening, and if cured properly makes a very palatable and nutritious hay. As soon as the crop is off, the ground is top dressed with manure and a seed bed prepared with the cutaway or the disc harrow and seeded to golden or German millet, which will make a heavy crop of hay by

the 10th or the 15th of September, when the ground is manured or fertilized again and seeded to Winter rye one and one-half bushels to the acre, and that will be ready to cut a fine crop by May 1st, making three heavy crops of forage for soiling or hay in just thirteen months.

For Spring planting to follow the peas and oats as a feed you could not get anything better than some early quick-growing corn. Plant as early as the ground will permit. This will be mature enough to feed when the oats and peas are cut.

Then later, as the soil warms up, plant late sweet corn such as Stowell's Evergreen or Mammoth Sugar, and also a lot of sorghum and cowpeas, and that makes an abund-

ant supply of excellent feed during the late Summer and Autumn months. The late planting of corn and sorghum and cowpeas can be made on the ground from which the rye or wheat are removed, thus cutting two crops the same season in time to seed in the Fall again.

BARLEY—SIX-ROWED—Finest sort for growing in Pennsylvania or New Jersey. Makes a good stiff straw, standing up well. Is the earliest among the beardless varieties, making a quick-growing crop of excellent and nutritious green fodder, and is growing in popularity wherever used, and will also make a good grain crop, although its principal value is as an early nutritious forage crop, to feed green or to cure as hay. If for the latter, it should be cut when in the milky state.

Sow $2\frac{1}{2}$ bushels per acre. Per bushel (48 lbs.) \$1.10.

BROOM CORN—EARLY EVERGREEN—This variety is the most popular to sow, for market.

Sow thinly in drills 4 feet apart, in early Spring, thinning out to stand 1 foot apart in the row. The upper portion of the stalk should be bent over when the straw is well developed, to keep it close and straight. Per bushel (46 lbs.) \$2.30.

BUCKWHEAT (Japanese)—This variety of Buckwheat is a great improvement over the old kind in the following respects: The new Japanese grows with astonishing vigor and begins to mature its grains in about fifty days, its extreme earliness insuring safety from frosts, where the other kinds often get caught. 2d. A most valuable quality is its ability to withstand wind-storms and not lodge. 3d. It holds its grain in harvesting. It has been known to stand uncut a month after its proper time for ripening, and without apparent loss from lodging or grains separating. 4th. In yield it excels. We have reports of one peck yielding 36 bushels; another peck 40 bushels; another 52 bushels. Its flour is the whitest and finest of all buckwheat. 5th. It will do well on soil too rich or too poor to support the old varieties. 6th. It will withstand sunblight almost perfectly. Fields of the old buckwheat average less than four bushels per acre, while the sun had no effect on Japanese. Per bushel (48 lbs.) \$1.10.

BUCKWHEAT—SILVER HULL—This variety has a large, plump, silvery grain. The plant continues to bloom longer than common Buckwheat, thus producing a larger crop. Per bushel (48 lbs.) \$1.00.

CANADA FIELD PEAS—When sown alone or with oats they have long been recognized as one of the best feeding and fattening forage crops for young stock and hogs, to carry them during the midsummer and drought period of July and August.

When sown alone they should be handled the same as any small grain crop and drilled at the rate of two and one-half bushels per acre. When mixed with oats, one-half the quantity, namely, one and one-quarter bushels per acre, to the same quantity of oats, is sufficient. The time of sowing corresponds with that of oat seeding. As peas are naturally hardy and not endangered by late frosts, the earlier the crop can be gotten into the ground the better.

Early seeding brings the crop into maturity and ready for feeding before the hot days of July and August. A pea crop, if sown as soon in Spring as ground is ready to plow, may be ready for feeding as early as the twentieth to twenty-fifth of June. Usually, however, it is available the first half of July and is equal to corn and six weeks earlier.

The above variety of Canada Field Pea should not be confused with the Clay Pea or Whippoorwill Pea or the many other varieties of Cow Peas grown in the warmer sections of the South. The Canadian Field Pea does not thrive in extremely hot weather, but if sown early will produce good and bountiful crops wherever the conditions are also favorable for the growing of oats. 4 qts., 35c.; peck, 60c.; bushel (60 lbs.) \$2.40.

COW PEAS—The Southern Cow Pea (in reality a bean) has been cultivated in the South for many years, but only in recent years has it been demonstrated that most all varieties are adapted to cultivation throughout the entire United States. They now promise to become one of our most valuable farm products.

The yield of hay runs from 1 to 3 tons per acre, the Rhode Island Experiment Station reporting one year a yield per acre of 35,000 pounds green vines, making $5\frac{1}{2}$ tons dried hay. The yield of peas range from 15 to 30 bushels per acre, occasionally as high as 50 bushels.

They have been grown by dairymen with very satisfactory results, following Winter rye, which was cut green in June for dairy cows, then stubble turned under and sown to mixed peas and oats, furnishing a large amount of forage in August, when grass pasture is usually short, and producing a supply of milk as abundant as in early Summer months.

As a fertilizer they come next to clover, to be plowed under when they commence to blossom; they will grow on land that will not produce clover.

As a fertilizer crop it excels all others, absorbing from the air more nitrogen than clover, and drawing from the subsoil large amounts of potash and phosphoric acid, depositing these fertilizer elements in the surface soil, just where needed for succeeding crops.

Cow peas afford excellent midsummer pasturage, but the best way for using green is to cut and feed to stock. Sow $1\frac{1}{2}$ to 2 bushels per acre broadcast.

BLACK—A standard trailing variety; and very extensively grown. Very prolific; early to mature; somewhat later than Whippoorwill. Makes a fine growth of foliage; and gives a good yield of peas, consequently better for cutting and as a soil improver. Very valuable as a forage crop, making an enormous yield of rich, nutritious feed. Per bushel (60 lbs.) Market Price.

BLACK-EYE—(Black-eyed Susan, or Sand Pea)—Later than Whippoorwill. Vines erect. Fodder long. An excellent soil improver. Similar in growth of vine and action of roots upon the soil as the other Cow Peas. Per bushel (60 lbs.) Market Price.

CLAY—Vigorous in growth of vine. Pods and vine somewhat similar to Black, but matures later. Very prolific in growth of peas and vine. Color of seed a light brown. Per bushel (60 lbs.) Market Price.

GRAY CROWDER, OR IMPROVED WHIPPOORWILL—Very early in maturity. The vines are not runners, but grow erect in bunches. The seed is brown speckled. Per bushel (60 lbs.) Market Price.

MIXED COW PEAS—These consist of a mixture mainly of Clay, Black, and Whippoorwill. Mixtures are preferred by some, because they grow thicker and produce a better crop of vine and forage, than by sowing single varieties alone. Can be profitably used for soiling or hay. Per bushel (60 lbs.) Market Price.

NEW ERA—Upright in growth, quicker to mature than Whippoorwill, prolific in peas. The vines make a large growth, cure easily, and make fine, dry forage. The seeds are of a dull red color, and, being smaller than Whippoorwill and the ordinary Cow Peas, less seed is required to sow an acre, 1 to $1\frac{1}{2}$ bushels being ample.

RED RIPPER—Red seeded; a very desirable and productive variety. Resembles the Black in growth of vine, but is ten days earlier, and more prolific. Per bushel (60 lbs.) Market Price.

WHIPPOORWILL—An early erect-growing bunch variety. The seed is brown speckled and more easily gathered than from the vine-growing sorts. Early in maturity and habit of growth. Good between corn.

Per bushel (60 lbs.) Market Price.

FLAX—Farmers should not lose sight of the fact that Flax can be raised where Wheat is raised, and where tried has brought better returns for the amount of labor expended than Wheat.

Sow 30 to 40 lbs. per acre. Per bushel (56 lbs.) \$2.60.

HEMP—This is a crop that deserves more attention. The fibre is in demand in Eastern markets, and the seed can be marketed for feed.

Sow 1 to 1½ bushels per acre broadcast, or one-half bushel in drills, 1 qt., 10c.; 2 qts., 20c.; 4 qts., 35c.; peck, 50c; per bushel (40 lbs.) \$1.80.

KAFFIR CORN—Grows erect to a height of four and one-half to six feet, with thick, short, pointed stalks, bearing broad, deep-green leaves. Heads are compact, averaging 10 to 15 inches in length. Yields two crops of fodder during the season, which can be fed either green or dried. It is an excellent feed in combination with other feed, such as Alfalfa, Beans, etc. The seeds are valuable for feeding poultry. Cultivate same as corn. Five pounds seed per acre. For fodder one to one and one-half bushels per acre either broadcast or drilled. Per bushel (50 lbs.) \$1.00.

OATS—WELCOME—Very plump, heavy grain, and close husks. In favorable seasons they will weigh from 40 to 45 lbs. per bushel. This variety grows from 5 to 6 feet high in rich soil and cool locations. The heads branch freely on all sides, and are from 16 to 22 inches in length. The straw is straight.

This variety is well suited to the climate of Pennsylvania and New Jersey. In warmer localities it will not produce so heavily, nor make such heavy grain. It is early in maturity, ripening one week ahead of other sorts. It will yield good crops where other varieties cannot be grown profitably. Per bushel (32 lbs.) 90c.

ONION SETS—See page 27

POTATOES—The soil best suited to the Potato is a rich sandy loam, but it seems to thrive in almost any soil and climate. The best fertilizers are plaster, super-phosphate of lime and bonedust. Plant as early in the Spring as the ground can be worked thoroughly, covering about four inches in warm soil, and in wet soil three inches deep, cultivate to keep down weeds, and draw earth to the plants as they advance in growth.

There are many so-called new varieties offered every season, but they disappear quickly. There is really none to be found better than the Early Rose, State of Maine, Green Mountain and Irish Cobbler. Per sack (165 lbs.) Market Price.

We make a specialty of handling only first class stock of the popular Maine-grown varieties, suited to this locality, at the proper season, March 1st to May 15th.

They are put up in original sacks of 165 lbs. (or 2 3-4 bushels) each. Prices varying according to the market.

We will have to offer Sir Walter Raleigh, Early Rose, Houlton Rose, White Peach Blow, Beauty of Hebron, Carman No. 1, Irish Cobbler, Snow Flake, State of Maine, Red Bliss, Green Mountain.

RAPE—DWARF ESSEX—This plant is extensively grown for forage, especially for sheep and for green manure, for which purpose there is perhaps no better plant adapted where a quick, rank growth is desired. Rape seed may be broadcasted, and it may be seeded in the corn field when the corn is "laid by." Rape is revolutionizing the sheep industry in this country, and it is also excellent for hogs and all kinds of poultry. It will be an advantage to test it on a small plot this year. Farmers who raise much stock and desire to get young cattle, sheep or lambs in favorable condition to be sold advantageously in the Fall can do it most cheaply by growing this rape. Prepare the ground as for turnips and sow in June or July with a turnip drill, in rows 2½ feet apart, at the rate of 3 pounds of seed per acre, or broadcast at the rate of 6 pounds to the acre. An acre of rape will be ready to pasture in six

weeks from time of sowing and will carry 12 to 15 sheep six weeks to two months. Its fattening properties are probably twice as great as those of clover. When sheep are feeding on rape they should at all times have access to salt. Our stock is the true Essex Dwarf, and not the worthless annual. (50 lbs. per bushel) per lb., 10c.

ROOTS—ASPARAGUS—Cultivation—For two-year-old roots prepare a bed by deep spading or trenching, working in a large quantity of well rotted manure. Dig trenches four feet apart and twelve to sixteen inches deep, and spade in at least four inches of well rotted manure in the bottom. Set the plants in the trench eighteen inches apart, covering them with about two inches of fine soil. After the plants are up, gradually fill up the trenches, and give frequent and thorough cultivation. The second season, early in the Spring, spade in a heavy dressing of manure and about two quarts of salt to the square rod. Cultivate well. The next season it may be cut for the table two or three times, taking care to cut all as fast as it appears. After the final cutting, spade in a liberal dressing of fine manure and sow one quart of salt to the square rod. The next season, and ever after that the bed should give a full crop, but should be annually manured after the last cutting and well cultivated through the remainder of the Summer. The tops should not be cut until dead ripe.

Conover's Colossal, doz. 60c.; per 100, \$4.50.

Palmetto, per doz., 60c.; per 100, \$4.50.

RHUBARB ROOTS—(when in season)

RYE—SPRING—This article has proved itself a good cropper and straw producer. It has come to stay. The growth is as tall as the Winter variety. It requires 1 3-4 to 2 bushels per acre, and the seed product being 20 to 25 bushels per acre. A great many people use it in preference to Winter rye, and think it pays better than oats. Distinct from the Winter rye, grain of finer quality and more productive; and can be successfully grown in any latitude. It is now being largely sown in the North in the place of oats, being a more profitable crop on account of the production of nearly four times the straw. Per bushel (56 lbs.) \$1.40.

RYE—WINTER—This is one of the most important of farm crops. In the first place it is a sure crop, failures being almost unknown. Every farmer should have at least a few acres of it. It is usually sown in the Fall, and as it grows very vigorously, will furnish pasture till late in the Fall, and also early in the Spring, before other grasses have made a growth. So it is of great value to dairy farmers. If sown early in the Spring it makes an early and abundant pasture, but it makes no grain crop. Grown for the grain alone it will yield good returns. It is a good Spring soiling crop, giving the earliest bite of green stuff, makes fair hay if cut in bloom or before fully headed out. Useful also for a manuring crop if turned under in early Spring. Rye improves worn-out soils. Sow at last working of corn, or by itself from July to November, at the rate of 1¾ to 2 bushels per acre. Per bushel (56 lbs.), \$1.20.

SOJA BEAN—Well adapted for improving poor soils. Is an immense yielder of excellent fodder relished by all cattle. Sow May 15th to June 15th. One-half bushel per acre in drills two and one-half feet apart. Per bushel (60 lbs.) Market Price.

VETCH—SPRING—(vicia Sativa)—Culture same as for peas. Valuable as a cover crop. Sow 2 bushels per acre. It is quicker in growth than Winter Vetch, and makes a splendid forage and hay crop, and is an excellent soil improver. When sown with barley or oats use 1 bushel, to 30 lbs. Spring Vetch to the acre. (60 lbs. per bushel) per lb., 06c.

VETCH—WINTER (Vicia Villosa, Sand or Hairy Vetch)—Sand-Vetch is a very valuable forage plant and is rapidly becoming extremely popular as year after year

the farmers of this country are learning more of its true value. It is noted for its extreme hardness, is highly valuable in the North as a Winter cover crop to prevent leaching, is also valuable for forage and fertilizing purposes. It withstands hard Winters, being harder than wheat. It is an annual, but drops its seed freely and will come up year after year on the same ground. It belongs to the pea family, but the vines are nearly twice as long and leafy as peas. It may be sown in the Spring or Fall with any crop of grain. It remains green all Winter and is valuable for early pasturing as well as for fertilizing. It is extremely early and has enormous value for feeding purposes. Drought, heat and cold do not affect it. It is eagerly eaten by all kinds of stock. The Washington Department of Agriculture estimates the value of an acre of this Vetch plowed under as equivalent to putting into the ground twenty to forty dollars' worth of commercial fertilizer. When sown in August or September it covers the ground before Winter sets in and prevents washing of the soil during Winter and early Spring, which saves a great portion of mineral fertilizers contained in the soil which otherwise would wash out. When sown in April or early May it can be cut in July, the second growth affording excellent pasture during the Summer. The yield of green forage runs from twelve to twenty tons per acre. When preparing the soil for vetches the pulverization should be very fine. The land should be clean, firm and moist, and the seed covered to the usual depth of cereal grains. It is suited to any soil and is valuable in this respect, as it produces good crops on poor, sandy soil, while on good land it grows to a height of four or five feet and produces enormous crops. Every farmer in the United States who raises any stock should have a field of it, as it is much more nutritious than clover and can be fed to any kind of stock with perfect safety. It is a rapid grower and thrives on little moisture. If raised for hay it should be left standing until some seeds have become well formed. It requires about 30 lbs. per acre broadcast. Winter Vetches are frequently adulterated with the cheaper Spring Vetch—which is very unsatisfactory to the planter, as Spring Vetches will not grow during the Winter. (60 lbs. per bushel) per lb., 10c.

We caution customers against low quotations for Winter Vetch, as they are frequently mixed with Spring Vetch to cheapen the product, a very unsatisfactory matter to the sower.

WHEAT—We carry a full line of all the principal varieties of Seed Wheat when in season. Our stock is all re-cleaned on our own premises, and customers can rely upon us to furnish the best and cleanest stock, true to name. Among the sorts offered are Fulcaster, Fultz, Longberry, Miracle, St. Louis Prize, and others. Per bushel (60 lbs.) Market Price.

ENSILAGE

A silo is simply a receptacle for ensilage. It may be of any preferred breadth or depth, but should be strong and tight. It may be constructed of concrete, stone or heavy boards, either above or below the ground, and may be of round or square shape. Ensilage is green vegetable matter, finely cut and packed closely in the silo by heavy pressure, so as to exclude the air. It is the exclusion of the air that prevents excessive fermentation and decay. Clover, green grass, vegetable tops or any green substance may be used, but the cheapest ensilage is that secured by drilling corn in rows, cutting the stalks when the ears are beginning to glaze, passing them through the ensilage cutter (or cutter and shredder) and filling the silo as quickly as possible. The ensilage is fed to cattle in Winter as a substitute for green food, being really preserved green corn fodder.

Cut the green corn for the making of ensilage as close to the root as possible, taking, if possible, even part of the latter, and use every part of the stalk from the root to

the tassel. Nothing is thrown away. The corn is then hauled to a silo, it is reduced to pieces of from one-half to three-eighths of an inch. The silo is filled to its utmost capacity, the opening and door being closed tight, and the chopped corn remains in it for a month before we use it. We usually fill the silo in September and begin to use the ensilage in the following month, continuing to feed the cows with it until the middle of May, when they are turned into pasture for the summer.

ITS GENERAL USE—The chopped corn in the silo ferments, the temperature in this specially constructed building rising as high as 160 degrees, and ensilage is the result. It makes excellent fodder and is now being used altogether by enterprising and up-to-date farmers throughout the country. Silos are being built all over the country, hundreds of them, going up in sections where farmers are just beginning to realize the value of this prepared fodder. Ensilage will keep in a silo for a year.

USEFUL HINTS

There are several crops that can be made to do service, not only in covering the land, but in destroying weeds. Millet, which grows rapidly, crowds the weeds out, while Hungarian grass, which may be mowed two or three times and then plowed under, is the best cleaner of the soil of weeds that can be used. Buckwheat is a crop that will grow on the poorest sandy soil, and even if corn or oats are broadcasted and turned under when high enough they will be serviceable. While the cow pea may be regarded as the best crop for adding nitrogen to the soil in Summer, there is nothing to prevent the growing of two crops on the same land for enriching the soil, as it may not be necessary for such crops to mature. They can be turned under at any stage of growth. It is maintained that the crops can add nothing to the soil other than the amount derived therefrom. This claim is true as far as the mineral elements are concerned, but there is a decided gain of nitrogen by the use of the leguminous plants. As the soil contains a large proportion of inert mineral matter, the plants gradually change it to an available condition, and, though not adding mineral matter to the soil, they bring it within reach of succeeding crops. In Winter the soil loses its fertility rapidly, especially if there is frequent freezing and thawing, with abundant rain, for which reason rye or crimson clover serve to prevent loss. It will, therefore, pay the farmers to grow crops on every square foot of ground, as they will be serviceable on the land if not profitable for market.

FEEDING ROOT CROPS

Be Kind to Your Stock—It will pay you. Farm lands in the United States are rapidly rising in value and the more intensive methods of Europe must be adopted here. With cheap corn in plenty, stockmen have felt satisfied. The more careful investigators of our experiment stations have, however, demonstrated that dry feed alone is highly wasteful. That it is not what an animal eats but what it digests and assimilates, that is of benefit to the owner. That comfort, care and change of food are also important. When fed on a ration containing something green or fresh, appetite is stimulated; the digestion is more perfect (through the laxative character of the fresh portion), and the general health and restful content greater.

The value of Mangels for stock feeding cannot be over-estimated.—The results from their use are clearly seen in the improved health and condition of animals, the increased flow and quality of milk from cows, and the saving in fodder. Mangels yield enormously if the soil is rich and can be grown at trifling cost. Every one who keeps even one cow should grow a patch of mangels for Winter feed.

Culture—Both Mangels and Sugar Beets require deep, well enriched soil. Sow in May or June in rows eighteen inches to two feet apart, and three to eight inches in the rows. Young plants may be transplanted to fill up vacancies. As soon as frost occurs dig the crop.

TURNIPS AS GREEN MANURE

The Turnip is coming to the front as an individual of importance in the economies of nature, and is destined to be used extensively as a soil enricher. Three to four pounds of seed of the long rooted Cow-horn, or Purple Top variety, per acre, sown broadcast at the last work-

ing of your corn, will send their roots down to a great depth and bring up a vast amount of fertility from below the reach of many other plants, and whether fed or plowed under in the late Fall the ground will be found in a much better condition mechanically, as well as with an actual increase of fertility for the succeeding Spring crop. If to be left until Spring before plowing, a mixture of crimson clover and turnips will be found to work well together, the decaying turnips feeding the clover bountifully in early Spring. Follow with oats next Spring, wheat in September, and sow mammoth red clover on the wheat the following Spring. We believe land so managed will give good crops and yet continually increase in fertility instead of running down.

POULTRY FEED AND REMEDIES

BIRD MILLET—Best imported seed. Large size, bright colored grain. Scattered in fine litter it "provides" more exercise than any other grain food, making the "wee wee babies" get right down to hard work to get their "daily bread." Per bushel (50 lbs.) \$1.50; 4 qts., 85c.; 1 qt., 10c.

BUCKWHEAT—Very useful, and giving poultry a variety in the way of feed. Per bushel \$1.00.

CAKE MEAL—Or Linseed Meal—Tends to produce a fine, glossy plumage. Should be fed occasionally in small quantities, with other soft feed. 5 lbs. 20c.; 10 lbs. 35c.; 50 lbs. \$1.20; sack (100 lbs.) \$2.25.

CHARCOAL—GRANULATED—Excellent for young and old chicks; should be kept constantly in reach of small chicks. Prevents diarrhoea, if fed once or twice a week.

It is of uniform grade, carefully screened, and free from dust. It aids digestion, and promotes the health of fowls in every way. Fine, medium, coarse: Pkgs. (2 lbs.) 10c.; sack (50 lbs.) 80c.

CHICK FEED—Pratt's Baby Chick—A perfect food for young chicks, ducks and turkeys. So ground and bolted that it is mechanically pre-digested. Furnishes the same nutriment, in the same proportion, as the mother hen. Pkg. (1 lb.) 10c.; pkg. (3 lbs.) 25c.; pkg. (6½ lbs.) 50c.

CHICK FEED—Too much attention cannot be given the quality and preparation of the ingredients of which chick feed is made, for, if impure grain is used, the mass soon tends to become mouldy, and the chicks will suffer. We offer only the best. 5 lbs. 20c.; 10 lbs. 35c.; sack (100 lbs.) \$2.15.

CHICK—Developing. Prepared especially for properly matured young chicks, after they are ready to have the chick food, and so carry them along to the age when they are ready to feed on the whole grain.

Chicks should be given Developing food when from 8 to 10 weeks old. 5 lbs. 20c.; 10 lbs. 35c.; sack (100 lbs.) \$2.15.

CHICK MANNA—A very desirable preparation for young chicks under 10 days old. Promotes health, quick growth and strong development. Especially valuable for raising chicks in Winter and early Spring. 1 lb. pkgs. 10c.; 5 lb. pkgs. 40c.

CORN—CRACKED—Our Cracked Corn is made from sound, well matured and well cured grain, and grown only in limited quantities at a time in order to keep it fresh and sweet. 4 qts., 15c.; peck, 25c.; bushel, 90c.

CORN—Whole Yellow—Our yellow feeding corn is the best obtainable. It is clean, sweet, and free from foreign matter. 4 qts., 15c.; peck, 30c.; bushel, \$1.10.

CUT ALFALFA—An excellent and invigorating green food for fowls, very easily digested, and calculated to keep them in fine condition. Our preparation is specially re-cleaned from all foreign matter before being cut to edible size. 10 lbs., 30c.; sack (100 lbs.) \$1.65.

DIARRHOEA REMEDY—For little chicks, and bowel troubles in adult fowls. White diarrhoea is more deadly to fowls than any other disease, and is stopped in its first stages by the use of Pratt's Remedy. Price 25c. pkge.

DISINFECTANT—Pratt's—A liquid preparation for spreading poultry houses. Destroys disease germs, kills lice, mites and ticks. Useful in cases of roup, cholera, gapes, canker, and scaly leg, and foot diseases. 1 qt. can 35c.

GAPE REMEDY—Pratt's—Quick, safe and sure. Useful in severe cases. Can also be used as a preventive. Full directions accompanying each package. Pkge. 25c.

MICA CRYSTAL OR GRIT—To aid digestion it is necessary to feed some gritty material. Mica Crystal supplies this want better than any other article known. We supply this in three grades, fine, for small chicks and birds; medium and coarse for larger fowl. Fine, medium, coarse, 5 lbs. 10c.; sack (100 lbs.) 65c.

GROUND BONE—Poultry Size—Contains the necessary Phosphoric Acid and Lime so essential to laying hens. It has all the nutritive ingredients essential to good egg production. 5 lbs. 20c.; 10 lbs. 35c.; sack (100 lbs.) \$2.65.

KAFFIR CORN—Our Kaffir Corn is the white, and the best procurable for feeding purposes. We offer only fresh, re-cleaned seed, absolutely free from dust or other foreign matter. 4 qts., 20c.; peck, 30c.; bushel, \$1.00.

LICE KILLER—An excellent exterminator of lice on young chicks, setting hens, incubator chicks. For lice on horses, cattle, and ticks on sheep. International, pkge. 25c.; Hess & Clark's, pkge. 25c.; Pratt's, pkges. 10c. and 25c.

MASH FEED—A highly nutritious laying mash, composed of ground grain, the necessary meat, and green food. Mix with sufficient water to make a crumbly mass. 5 lbs. 20c.; 10 lbs. 30c.; 25 lbs. 75c.; sack (100 lbs.) \$2.15.

NEST EGGS—Our stock consists of the ordinary porcelain egg, and the medicated or lice-killing. Medicated, 5c. ea.; doz. 50c.; Porcelain, 2 for 5c.; doz. 25c.

OYSTER SHELL—Prepared—Manufactured from shells in a pure condition. The lime contained in the shells assists in the formation of the egg shell and contributes to the general health of the fowls. A handful to five fowls daily will be found valuable at all seasons of the year. Fine, medium, coarse, 5 lbs. 10c.; 20 lbs. 30c. Fine, medium, coarse, sack (100 lbs.) 50c.

PANACEA—HESS & CLARK'S—This is not a stimulant, but a digestive tonic, which produces eggs in nature's way. Panacea fed in Winter will wonderfully increase the egg production. It is fed with other foods, and enables the system to appropriate egg-making material from the feed fed. Pkgs., 1½ lbs., 25c.; 5 lbs., 60c.

POULTRY FEED—INTERNATIONAL—An excellent medicinal Poultry Food and egg producer, and tonic. Pkge., 25c.

POULTRY MEAT—OR MEAT SCRAPS—Manufactured for us by a reliable firm. Nothing but pure materials are used, and no deleterious preservatives. Our stock is strictly fresh at all times. It is a great egg producer. 5 lbs. 20c.; 10 lbs. 35c.; sack (100 lbs.) \$2.65.

POULTRY REGULATOR—Pratt's—Is a scientifically prepared tonic, regulating the digestion, bowels and blood, affording a safe remedy for the common poultry ailments, and keeping the fowls in such perfect health that an increased quantity of eggs is positively assured. Pkgs.: 8 oz. 10c.; 26 oz. 25c.; 4 lbs. 50c.

RICE—Broken, for feeding—Valuable for young chicks and growing stock. 5 lbs. 25c.; sack (100 lbs.) \$3.50.

ROUP REMEDY—An excellent remedy for cold, or Roup, diphtheria and all catarrhal diseases, as well as for Canker. It is an oily preparation, having antiseptic emollient or healing properties, and is non-irritant.

Is also used as a preventive.

Hess & Clark's (in liquid form), per can, 25c.

Pratt's (in dry form, 1½ oz., making 18 gal.); pkge., 25c.

SCRATCH FEED—We are the local agents for one of the largest Western houses manufacturing this feed. It is a popular sort and has an immense sale, because of its excellent feeding qualities. 5 lbs., 15c.; 10 lbs., 25c.; sack (100 lbs.), \$2.10.

SORGHUM—A patch of sorghum planted where the fowls can have access to it, and a few heads bent down so they can get the seed will furnish food for them during late summer and early fall. I have seen fowls so fat on this food that they could hardly be eaten, yet they produced great numbers of eggs. Bushel (50 lbs.), \$1.75.

SUNFLOWER—Small, for chickens. Clean seed and well-filled grades. 1 qt., 10c.; 2 qts., 15c.; 4 qts., 35c.; peck, 60c.; bushel (25 lbs.), \$2.00.

WHEAT—FEEDING—All seconds, resulting from the cleaning of seed wheat, we offer as feeding wheat.

The quality of our feeding wheat will therefore be found all that can be desired. 4 qts., 25c.; peck, 40c.; bushel (60 lbs.), \$1.45.

PIGEON FEEDS

Buckwheat—Our feeding buckwheat is sound, plump and clean, and is useful in giving pigeons a variety in feed. 4 qts., 20c.; peck, 30c.; per bushel (48 lbs.), \$1.00.

Charcoal—Pigeon size; specially ground, and free from unnecessary dust. Pkge., 10c.; sack (50 lbs.), 80c.

CORN—CRACKED—Specially prepared from sound, well-matured and well-cured grain. 4 qts., 15c.; peck, 25c.; bushel, 90c.

CORN—YELLOW FLINT—Somewhat larger than the Canada flint, but of proper size for feeding pigeons. 4 qts., 15c.; peck, 30c.; bushel, \$1.10.

FLAX—Extra quality, whole flax for feeding, in connection with other grain. 1 qt., 15c.; bushel,

MICA CRYSTAL OR GRIT—To aid digestion it is necessary to feed some gritty material. Mica Crystal supplies this want better than any other article known. We supply this in three grades, fine, for small chicks and birds; medium and coarse, for larger fowls. 5 lbs., 10c.; sack (100 lbs.), 65c.

"XX" RED CROSS HEALTH GRIT is superior to the other Red Cross brands by reason of its having more concentrated Pure Bone Ash, and tonic properties, and costs more than any other Health Grit to prepare. The analysis of the droppings from the birds fed on the "XX" shows, 62 per cent. less waste of protein than that from birds not fed with it, proving conclusively the great waste of food that goes in the droppings that should be used, adding flesh more quickly, giving more vigor and strength to the birds, and a great saving on feed. The price may seem

high in proportion to that of ordinary Grits, but as the manufacturers make it in immense quantities, the price has been reduced to a minimum at per sack of 100 lbs. Sack (100 lbs.), \$1.60.

HEMP—A healthful feed, noted for its fattening properties. 1 qt., 10c.; 4 qts., 35c.; bushel (40 lbs.), \$1.80.

KAFFIR CORN—One of the most valuable and extensively used pigeon feeds known. 4 qts., 20c.; peck, 30c.; bushel, \$1.00.

MILLET—BIRD—Best imported seed. Large size, bright colored grain. Scattered in fine litter it "provides" more exercise than any other grain food, making the "wee wee babies" get right down to hard work to get their daily bread." 1 qt., 10c.; 4 qts., 25c.; bushel (50 lbs.), \$1.50.

PREPARED OYSTER SHELL—Manufactured from shells in a pure condition. The lime contained in the shells assists in the formation of the egg, and contributes to the general health of the fowls. A handful to five fowls daily will be found valuable at all seasons of the year. We have three sizes, coarse, medium, and fine. 5 lbs., 10c.; 20 lbs., 30c.; sack (100 lbs.), 50c.

CANADA PEAS—Most preferable for feeding pigeons, being perfectly round and very small. They are also used for fodder; when sown in oats and cut green they become very nutritious. Bushel (60 lbs.), \$2.25.

PIGEON FEED—To meet the requirements of the discriminating Pigeon Fancier, who may raise birds either on a large or on a small scale, we have prepared, and found ready sale for, the mixtures that will here follow:

The four kinds named contain the standard pigeon feeding grains in varying proportions, and the customer will notice that we mention what grains are omitted.

No. "1" contains no flax, cracked corn nor flint corn. 10 lbs., 40c.; sack (100 lbs.), \$2.75.

"B" contains no cracked corn nor Kaffir corn. 10 lbs., 35c. Sack (100 lbs.), \$2.50.

"L" contains no flint corn. 10 lbs., 35c.; sack (100 lbs.), \$2.35.

"S" contains no cracked corn. 10 lbs., 35c.; sack (100 lbs.), \$2.40.

RICE—BROKEN—Used with other feed lightens digestion; improves the birds. 5 lbs., 25c.; sack (100 lbs.), \$3.50.

VETCHES—FEEDING—Feeding Vetches for pigs. Per lb., 6c.; bushel (60 lbs.), \$3.00.

WHEAT—FEEDING—Fine stock of seconds from best seed wheat. 4 qts., 25c.; peck, 40c.; bushel (60 lbs.), \$1.45.

HORSE AND CATTLE REMEDIES

ANIMAL REGULATOR—(PRATTS)—For horses, cattle, sheep, hogs and dairy cows. Acts directly on the blood, bowels, and digestive organs of the animal. Builds up run-down horses, cures incipient hog cholera. Fattens pigs rapidly. Dairy cows produce more milk and butter. Stops skinking, and makes calves grow healthy. Per Pkge., 25c.

BAG BALM—We recommend Bag Balm for all diseases of udder and teats; Caked Bag, Sore Teats, Bunches, Chapping, Cuts, Inflammation, etc. It makes easy milkers of hard ones, keeps all the parts in a sanitary, healthful condition. Per box, 50c.

GRANGE GARGET CURE—We recommend Grange Garget Cure for that peculiar disorder so peculiar to cows, the hardening of the udder or garget. Inexperienced people often mistake it for caked bag, bunches in bag, etc. Remember, it is a separate disease, with its own peculiarities, causes, etc. Twenty-three years' use by dairymen and farmers proves its economy and value. Per can, 50c.

GREEN MT. HOOF SOFTENER AND GROWER—We recommend Green Mt. Hoof Softener and Grower for Thrush, Pinched or Contracted Hoofs, Brittleness of the Hoof, and, in fact, for every disease that attacks the hoofs of horses. It not only cures, but its frequent use will keep the hoof in a healthy condition. Per box, 50c.

KOW KURE, THE GREAT COW MEDICINE—We recommend Kow Kure for Scouring, Lost Appetite, Bunches or Red Water; especially for possible or Threat-

ened Abortion, for Barenness, for Retained Afterbirth, for Milk Fever. Hundreds of users testify that it helps increase the flow of milk from 10 to 20 per cent. It is a remedy made only for cows. Costs a cent a day per cow.

Postage extra, according to Parcel Post Regulations which your Postmaster can give you. Small size, per can, 1½ lbs., 50c.; large size, per can, 3¼ lbs., \$1.00.

AMERICAN HORSE TONIC—We recommend American Horse Tonic as a general improver for Horses. Hundreds of users tell us that horses look better, feel better, act livelier, are full of snap and ginger when they are given it. Besides this, we recommend it as a Worm Expeller, for Lost Appetite, Rough Hair, Coughs, Inflammation of Lungs and Bowels, Stoppage of Water, Recent Founders, Distemper, etc. Small pkgs., 25c.; large pkge., 50c.

HORSE COMFORT—We recommend Horse Comfort for all Flesh Wounds, Wire Cuts, Galls and Sores of long standing, for Blood Poison, Proud Flesh, Scratches, Mud Fever, for Snag Wounds, Sore Shoulders, Grease Heel, Malignant Ulcers, Fistula, Poll Evil, Corns in Horses, etc. We claim that Horse Comfort has won the right to the name—"The World's Greatest Healer." Small bottle, in pkge., 25c.

STOCK FEED—INTERNATIONAL—This is a strictly medicinal tonic. Cures epizootie, indigestion, liver trouble, coughs, influenza and impure blood in horses and cattle. Prevents hog cholera. Pkge., 25c.

DOG FOOD

SPRATT'S PATENT MEAT FIBRINE VEGETABLE DOG BISCUITS—The standard dog food. Used at the leading kennels and dog shows throughout the world. A staple and constant food for all breeds of dogs. 100 lbs., \$6.40; 25 lbs., \$1.85; 3 lbs., 25c.; per lb., 10c.

SPRATT'S PATENT PUPPY BISCUITS—The standard puppy food. A perfect and whole food for pup-

pies of all breeds. Puppies should be started on these biscuits when about a month old, and then should be continued until such time as their teeth become sound and strong, usually when they are about six months old. 100 lbs., \$6.65; 25 lbs., \$1.90; 3 lbs., 25c.; per lb., 10c.

A price list of special publications of interest to owners of pets of the canine and feline species will be mailed upon application.

BIRD SEEDS

CANARY—PLAIN—The canary seed we import is large, heavy, and free from dust or other impurities.

Canary raisers appreciate the fact that it does not pay to feed dusty and fermented seeds. 1 qt., 20c.; 10 lbs., \$1.00.

CANARY—MIXED—A mixture of canary and bird rape, very beneficial to cage birds, to which may be added

any of the seeds enumerated below, at the option of the customer. 1 qt., 20c.; 10 lbs., \$1.00.

BIRD RAPE—Some canaries prefer a large proportion of Rape Seed, others less.

We supply it separately at the prices following: 1 qt., 20c.; 10 lbs., \$1.00; bushel (50 lbs.), \$5.00.

BIRD LETTUCE—A slight sprinkle of this is much relished by canaries and should be given only occasionally, as Lettuce contains a slight trace of opium, which is, however, not harmful. 1 oz., 10c.; ¼ lb., 30c.; 1 lb., \$1.00.

BIRD MILLET—GERMAN—This is especially well adapted for mixture with canary and rape for feeding canaries, as it gives variety. 1qt., 10c.; 4 qts., 25c.; peck, 45c.; bushel (50 lbs.) \$1.50.

CUTTLE BONE—The bone of the cuttle fish, an indispensable adjunct to the canary bird. 2 for 5c.; per lb., 35c.

HEMP—Hemp seed has a tendency to fatten the birds and should therefore be fed only in small quantities occasionally. 1 qt., 10c.; 4 qts., 35c.; bushel (40 lbs.), \$1.80.

MAW SEED—Calculated to improve the song of canaries, etc. Also used as a condiment. Per lb., 20c.

SUNFLOWER—LARGE, FOR PARROTS—Extra large well-filled seed, very acceptable to discriminating parrots 1 qt. 10c, 2 qts. 15c, 4 qts. 35c, pk. 60c, bushel (25 lbs.), \$2.00.

INSECTICIDES AND FUNGICIDES

ARSENATE OF LEAD—Has attained a wide reputation as a reliable and economical insecticide and is particularly destructive to leaf-eating insects.

It is in paste form and should be sprayed in the proportion of 1 oz. to 1 gallon of water. 1 lb. can, 20c.



Pat. March 16 and Nov. 9, 1897.

BUG DEATH—Is a very fine powder, so exceptionally tenacious that it does not wash off. If used when the tender shoots come from the ground you never will be bothered, but even if the bugs and worms have got the upper hand, it is not too late by any means to use Bug Death right now, for it will kill any bug or worm that eats the leaf, blossom, or flower of any plant. It is ideal for use on Potato, Squash, Cucumber, Currant, Gooseberry and Tomato plants and vines; for house plants and "that little vegetable garden" it is unexcelled.

It contains no Arsenic nor Arsenical poison of any name or nature. Does not harm birds, animals, or foliage, no matter how freely it is applied. In addition to killing the bugs or worms, and preventing blight it nourishes the plant, as the healthy leaf absorbs moisture and carbon from the air. 1 lb. cans, 15c.; 3 lb. pkgs., 35c.; 5 lb. pkgs., 50c.; 12½ lbs., \$1.00; 100 lb. keg, \$7.50.



DICKEY'S TUBULAR BUG DEATH DUSTER—Is especially handy and effective for small vegetable or house gardens, for applying any insect powder in dry form. Price, 25c. each.

ONE-ACRE-AN-HOUR SIFTER—This is an ideal sifter for applying Bug Death dry. It is of the very latest pattern, remarkably effective and distinctly economical. Easy to operate, and gives quick covering to all plants and vines requiring a top application. The price of this very useful implement is 60 cents.

FLY-SPRAY—TARGET BRAND—Is an Insecticide, Germicide and Disinfectant. It is non-poisonous and may be used with safety and effectiveness on Cattle, Horses, Hogs, Dogs and other domestic animals.

It will protect Cows from Flies and Mosquitoes and prevent the loss in yield of milk which always occurs during the Fly Season.

It will kill all Flies that it reaches.

It will destroy their eggs.

It will not gum the hair or make it brittle.

It will not irritate the skin.

It can be used at milking time and will not taint the milk.

It will protect Horses from Flies if applied before a drive, or before turning out to pasture.

If applied to Dogs will rid them of Fleas. 1 qt. can, 40c.; 1 gal., \$1.00.

LICE KILLER—(Powdered form)—Non-poisonous and non-explosive. Being stronger, has greater disinfecting qualities than similar preparations. Quickly and thoroughly kills lice on ducks and chickens. Rids horses, cattle, hogs, dogs, and cats of lice. Destroys ticks on sheep, insects and bugs infesting shrubbery, vines and plants. Drives out moths and bugs from furniture, closets, carpets and clothing. Hess & Clark's pkgs., 25c. each; International pkgs., 25c. each; Pratt's in pkgs., 10c. and 25c. each.

PARIS GREEN—For Potato Bugs and other leaf-eating insects. Is highly effective and contains at least 55 per cent. of arsenious tri-oxide, and less than 3½ per cent. thereof in the fresh or uncombined state. ¼ lb., 10c.; ½ lb., 20c.; 1 lb., 30c.



RAT CORN—Will exterminate Rats, Mice and Gophers from your premises in a safe, sane and sanitary manner. No odors or smells. It mummifies them. No mat-

ter where they die, they simply DRY UP. Positively do not smell. Rat Corn is a new and scientific discovery, and without a doubt the greatest rat destroyer in the world; the only one that kills rats without any bad, dangerous or disagreeable effects.

A trial will convince you. 25c. per can. Postage, 5c. extra.

SCALE DESTROYER—TARGET BRAND—For San Jose scale, spray during Fall, Winter or early Spring, while the trees are dormant.

Used also in Summer for Oyster Shell Scale, White Fly, Young San Jose Scale, and Aphis. 1 qt, 35c.; 1 gal., \$1.00.

SLUG-SHOT (HAMMOND) is now sold by leading seedsmen. Costs one-quarter as much as Paris green or London purple, and is far better than either for destruction of potato bugs. We sell thousands of pounds to regular customers every year.

It positively destroys the bugs, old or young; it will

not hurt you nor your plants. In using it a light dusting is just as good as loading down the plants, so far as destroying the bugs is concerned.

Guaranteed to destroy potato bugs, and those on tomatoes and egg-plants, currant worms, cabbage lice and worms, fleas, beetles and striped bugs on melons, turnips, beets, onions, etc., also a preventive of the rosebug and cut worm. Use in the morning while the dew is on; dust on dry. 5 lb. pkge., 30c.

SPRAYERS—For Spraying liquid solutions that have no sediment. They work on the suction or atomizing principles and are made of tin. Each 50c.

WEED KILLER—This is deadly, poisonous to animals and should be used judiciously. Used to keep roadways and paths clear and free from weeds, as well as tennis courts and ball diamonds, walls and gutters, alleyways and fence corners.

It is a most effective combination of high-grade chemicals for the purpose. 1 qt. can, 45c.

FERTILIZERS

BONE MEAL OR GROUND BONE—Made of pure raw ground animal bone, without any other admixture. Its moderately slow stimulating qualities, (lasting in effect), make it indispensable for use on Lawns, Grass plots, Vegetable and Flower Gardens, and for Potted Plants, furnishing the soil with all the necessary chemical stimulants.

Does not burn, as do some manures, and commercial fertilizers. 5 lb. package (sufficient for a space of 40 sq. ft.), 25c.; 10 lb. package, 40c.; 25 lbs., 75c.; 100 lbs., \$2.00; 200 lbs., \$3.50.

LIMESTONE, PULVERIZED—Lime is a necessary plant food, just as essential to plant life as Nitrogen, Potash or Phosphoric Acid, and it must be present in the soil, or no crop can grow. It maintains the soil in a condition of alkalinity or sweetness, favorable to many crops and nitrogen gathering bacteria.

Pulverized Limestone is made from the purest crystalline white limestone obtainable, is pulverized almost as fine as flour. The finer it is ground the more readily is it available to plant life and gives quicker results. It is well known that burned lime, if used too freely, destroys fertility; not so with pulverized limestone; this sustains fertility. Lime is the only known agent that will restore land from an acid to an alkaline condition.

Lime is a valuable supplement to farming methods, but is not a substitute for anything. Its use does not relieve the farmer of the necessity of saving and using all the crop residues, or buying commercial fertilizers. Lime, when needed, means better physical condition of the soil.

Use 2 tons per acre, and for alfalfa 4 to 5 tons. Per 100 lbs., 60c.

SHEEP MANURE—This is the pure natural product, not mixed with any adulterant. It is excellent for lawns, vegetables and flowers, and can be used in liquid form by adding water, and gives quick and durable results. Use 1,000 lbs., per acre. 5 lbs., 20c.; 10 lbs., 35c.; 25 lbs., 60c.; 50 lbs., \$1.00; 100 lbs., \$1.50; 1,000 lbs., \$11.50.

SOLUBLE SULPHUR COMPOUND—Reduces the cost of spraying by fighting three different classes of pests and diseases, with the same weapon at the same time. Much more penetrating than Lime-Sulphur Solution, and far superior to it in every way.

It is used for the control of San Jose Scale, Oyster Shellbark Louse and other Scale insects, Apple Scab, Peach Leaf Curl and other fungous diseases; Pear Psylla, Leaf Blister Mite and Aphis.

It is put up in air-tight cans, in powder form, and will keep indefinitely.

It is much cheaper and more convenient to handle than the Lime-Sulphur Solution, as 100 lbs. of this solution will make as much diluted spray material as a barrel of solution weighing 600 lbs.

As the material is in powder there can be no leakage, being less likely to be injured in shipment than a liquid.

It will keep indefinitely in any climate, and will not injure foliage when properly applied.

We have excellent reports from the leading experiment stations, which recommend it highly.

5 lb. can, \$1.00; 1 lb. can, 25c.

WOOD ASHES—Made of hardwood burned. Should be used in Spring or Fall as a top dressing for lawns and grass fields. Apply at the rate of 1,000 lbs. per acre. 1 lb., 5c.; 3 lbs., 10c.; 5 lbs., 15c.

ILLUSTRATED CATALOGUE

—OF—

VEGETABLE SEEDS

With General Directions for Cultivation

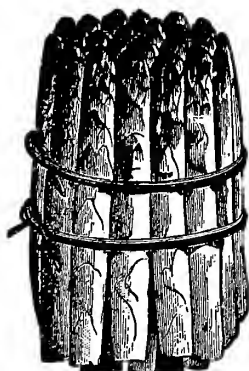
Terms of sale, etc., see second page of cover.

As we are not bound by these prices after March 1st, customers ordering after that date should submit us their orders for quotations.

For quantities required per acre see table, page 39.

ASPARAGUS

Culture—Soak the seed twenty-four hours in warm water, and sow in drills, one foot apart. When the plants are well up, thin to three or four inches in the row, and give frequent and thorough cultivation during the summer. The second season prepare a bed by deep spading or trenching, working in a large quantity of well rotted manure. Dig trenches four feet apart and twelve to sixteen inches deep, and spade in at least four inches of well rotted manure in the bottom. Set the plants in the trench eighteen inches apart, covering them with about two inches of fine soil. After the plants are up, gradually fill up the trenches, and give frequent and thorough cultivation. The second season, early in the spring, spade in a heavy dressing of manure and about two quarts of salt to the square rod. Cultivate well. The next season it may be cut for the table two or three times, taking care to cut all as fast as it appears. After the final cutting, spade in a liberal dressing of fine manure and sow one quart of salt to the square rod. The next season, and ever after that the bed should give a full crop, but should be annually manured after the last cutting and well cultivated through the remainder of the summer. The tops should not be cut until dead ripe.



Conover's Colossal

Conover's Colossal—A mammoth variety of vigorous growth, sending up from fifteen to forty sprouts from one

to two inches in diameter. Color deep green, and crown very close. oz., 10c.; $\frac{1}{4}$ lb., 15c.; 1b., 40c.

Asparagus Roots—Conover's Colossal, Per 100, 60c.; per 1000, \$4.50; Palmetto, per 100, 60c.; per 1000, \$4.50.

BEANS

DWARF, BUSH OR SNAP

Culture—Beans do best on light, warm soils, but will do well on almost any kind of soil. They do not require heavy manuring. For earliest crop they should be planted after all danger of freezing is past. For a succession they should be planted every two weeks. Plant two or three inches apart. Hoe often, but never when vines are wet

Green-Podded Varieties

Late Refugee, or Thousand to One—Forty days—Vines dwarf, large spreading, exceedingly hardy, with small, smooth leaves and large lilac flowers, very late, and esteemed for late planting and for use as pickles; pods long cylindrical, green, becoming white, streaked with purple, of good quality as snaps; beans long, light-drab, dotted and splashed with purple. Qt., 25c.; 4 qts., 90c.; peck, \$1.75; bu. \$7.00.

J. & S. Giant Valentine Stringless—Earlier than Valentine. Pods much longer, round and stringless. Qt., 20c.; 4 qts., \$1.10; peck, \$2.00; bushel, \$7.50.

Black Valentine—A desirable sort for the market gardener, vigorous in growth, and of good quality. Pod long, round and slender. Qt., 30c.; 4 qts., \$1.10; peck, \$2.15; bushel, \$8.50.

Burpee's Stringless Green Pod—Thirty days—Early and very productive, with fine pods, of best quality. Should be planted at intervals for a succession. Pods medium green, straight and round, tender, brittle, and of fine flavor. Qt., 30c.; 4 qts., \$1.10; peck, \$2.00; bushel, \$7.50.

BEANS—Continued**Extra Early Red Valentine**

Extra Early Red Valentine—Thirty-two days—Pods light, green, round, and slightly curved; very prolific, stringless. Qt., 25c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

Early Long Yellow Six Weeks—A green podded, yellow-seeded sort. Pods flat, tender and long. Qt., 25c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

Longfellow—Bears long green pods in profusion. Pods are of fine flavor and very tender, straight and fleshy. Qt., 25c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

Round Yellow Six Weeks—One of the best green pod Beans. While this variety does not differ from the Early Kidney Six Weeks in size or general appearance of the vine, the pods are shorter, very much thicker, more fleshy, while retaining the vigor and hardiness of the old sort, it is fully one week earlier. Dry bean, color of ordinary Six Weeks, but it is much shorter, almost round. Qt., 25c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

Dwarf Horticultural—The pod in form and color very much resembles that of the Horticultural Pole Bean, hence its name—but it is a dwarf, bush variety, and very attractive. Qt., 30c.; peck, \$1.10; 4 qts., \$2.10; bushel, \$8.00.

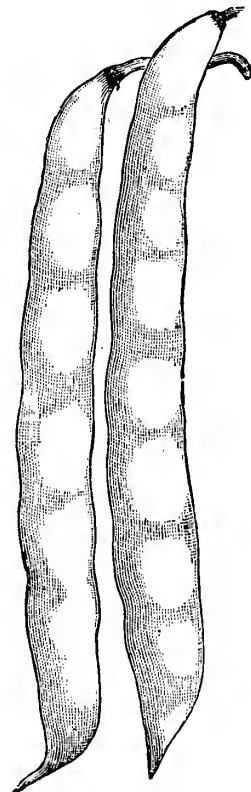
Royal Dwarf White Kidney—Forty days—One of the best late kinds; seed white, kidney shaped; as a Winter bean for shelling it has no superior. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Large White Marrow—Excellent quality, either shelled green or dry. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Dwarf, White Navy—Seeds small, round and oval; used exclusively for field culture. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Wax Pods

Golden Wax Bean—35 days—This bean has long been and still continues the standard wax variety for general use, and where many varieties have been introduced claiming to be superior in some respects and aiming to replace it, they have all sooner or later been forced to the rear as not possessing as many good qualities in as high degree. Vines medium size, erect, moderately spreading, hardy and productive, with small, smooth leaves, and small white blossoms; pods are long, nearly straight, broad, flat, golden yellow, very fleshy and wax-like, with short, fleshy, green

**Golden Wax**

point, cooking quickly as snaps, shelling well when green, and of the highest quality in both conditions. Beans medium size, oval, white, more or less covered with two shades of purple red. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Wardwell's Kidney Wax—The vines of this variety are very large, strong growing, but are peculiarly liable to blight, but when healthy, yield a large crop of long, nearly straight, handsome, very white and wax-like pods. They are of good quality and on this account, as well as their beauty of form and color, are easily sold. They ripen about the same time as the Golden Wax. The dry beans are large, kidney-shaped, white with dark markings about the eye. Market gardeners find this a profitable variety owing to the large size and handsome color of the pods. Qt., 35c.; 4 qts., \$1.35; peck, \$2.60; bushel, \$10.00.

Round Pod Kidney Wax—An improvement on Wardwell's Kidney Wax. Pods long and straight, a heavy bearer of good quality. Qt., 35c.; 4 qts., \$1.35; peck, \$2.60; bushel, \$10.00.

Davis' Kidney Wax—Pods large and showy, about 5 inches long, flat, wide and straight; seed white, kidney-shaped, and plant upright, height 14 inches. Qt., 35c.; 4 qts., \$1.35; peck, \$2.60; bushel, \$10.00.

Currie's Rust Proof Wax—This variety is claimed to be absolutely rust proof, and is as nearly rust proof as any good wax podded bean can be; vine vigorous and productive, about the same as Kidney Wax. Dry beans bluish-black. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Dwarf German Wax Black Seeded—40 days—Pods medium length, borne well up among the foliage, curved, cylindrical, thick, fleshy, and of a clear, waxy-white color, with long, slightly curved point; remain a long time in condition for use as snaps. Beans small, oblong, jet black. Vines medium sized, very vigorous and hardy, withstanding rust exceedingly well. Flowers reddish white or purple. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

BEANS—Continued

Pole or Running

Culture.—These are even more sensitive to cold and wet, as well as to drought and hot winds, than the dwarf varieties. After settled warm weather, set poles four to eight feet long in rows north and south four feet apart, the poles being three feet apart in the row, and set leaning to the north at an angle of 35 degrees. Set in this way, the vines climb better, bear earlier, and the pods are straighter and more easily seen. Around each hill plant five to eight beans, two inches deep. When well started, thin to four plants, and start any that fail to climb, around the pole in the same way as the others, for they will not grow well otherwise.

White Dutch Case Knife—75 days—The earliest variety of Pole Bean, excellent flavor, and good green or dry; seed broad, white, flat; can be used as a Snapshot or Lima when dry. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Kentucky Wonder—One of the earliest of the green podded pole beans; pods growing in clusters, light green in color, and stringless, tender and melting when cooked. Qt., 35c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

Horticultural—80 days—The favorite, used green or dry. The dry beans are very superior for cooking. Qt., 35c.; 4 qts., 90c.; peck, \$1.75; bushel, \$6.50.

White Crease Back—45 days—Extremely early, very popular in the South; seed small, white, kidney-shaped, long, pods green. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Lazywife—A very productive sort, of fine quality. Pods are thick, broad, and fleshy, about 5 inches long, growing in clusters, stringless when young. The dry beans are white, and used as a shell bean in Winter. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Red Speckled Cut-Short, or Corn-field Beans—An old variety of Snap Bean, very popular for planting among corn; vines medium, pods short, round, tender and uniform, beans white, with reddish brown dots, and nearly oblong, resembling the Bush Valentine. Qt., 30c.; 4 qts., \$1.00; peck, \$1.90; bushel, \$7.00.

POLE LIMA BEANS

Improved Extra Jersey Lima—90 days—Very superior quality, white seed much larger than the ordinary Lima, of greenish tinge; tender and sweet. Qt., 30c.; 4 qts., \$1.00; peck, \$1.75; bushel, \$6.75.

Salem County Improved Large Lima—90 days—A favorite table variety, very prolific; pods borne in clusters, with 5 or 6 large beans to the pod. Far superior to other Pole Limas. Ripens early and bears until frost. Qt., 35c.; 4 qts., \$1.25; peck, \$2.00; bushel, \$7.50.

Dreer's Pole Lima—Early and more prolific than Large Lima. Beans, small, extra quality. Qt., 30c.; 4 qts., \$1.00; peck, \$1.75; bushel, \$6.50.

Shotwell's Improved Thick Pole Lima—A well-known favorite introduced from New Jersey. Beans thick and large. A decided improvement on Dreer's Improved Lima in quality, earliness and productiveness. Highly recommended by all who have tried it. Qt., 30c.; 4 qts., \$1.00; peck, \$1.75; bushel, \$6.50.

King of the Garden Lima—One of the best Pole Beans for use, shelled either green or dry. Qt., 30c.; 4 qts., \$1.00; peck, \$1.75; bushel, \$6.50.

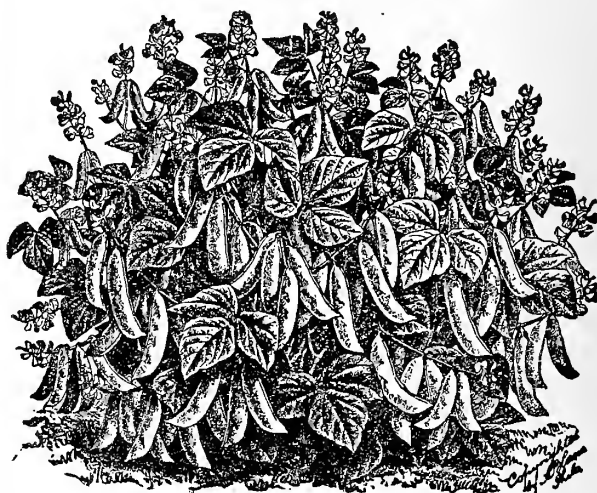
Challenger Lima—A very productive sort maturing somewhat later than the flat varieties. The pods are produced in clusters and average 3 to 4 inches in length, containing 3 to 5 thick beans which crowd each other in the pods. Qt., 30c.; 4 qts., \$1.00; peck, \$1.75; bushel, \$6.50.

BUSH LIMA BEANS

Dreer's Bush Lima—A vigorous Bush Lima, growing about 2 feet high; very prolific in pods; an average of four thick, sweet beans in each pod. Qt., 50c.; 4 qts., \$1.75; peck, \$3.25; bushel, \$12.50.

Burpee's Improved Bush Lima—A sort distinct from Burpee's Bush Lima in that it is about ten to fifteen days earlier, bears much larger and thicker pods, and larger greenish white beans than Burpee's Bush Lima. The plants are vigorous, with heavy foliage and are about 2 feet high and of upright growth. The yield is about one-third more, and the beans of a luscious flavor. Qt., 40c.; 4 qts., \$1.50; peck, \$2.75; bushel, \$10.00.

Burpee's Bush Lima—Vine about 20 inches high, erect and vigorous in growth; very prolific in large green pods, filled with large white beans. Qt., 35c.; 4 qts., \$1.25; peck, \$2.10; bushel, \$8.00.



Fordhook Bush Lima

Fordhook Bush Lima—The pods, borne in clusters of from four to eight, are much larger, and about six days earlier than Dreer's Bush Lima, which latter they otherwise resemble.

The green beans are large, and even when of full size, when cooked, are not dry, but tender, sweet, and luscious.

The bushes are decidedly erect in growth, with side branches well held up, and holding the pods from the ground, and thus protecting them from rust. A habit quite distinct from that of the low-growing growth of Dreer's Bush Lima. The foliage is large, like that of the Pole Lima. The leaves are large, smooth, and of a deep, rich green color.

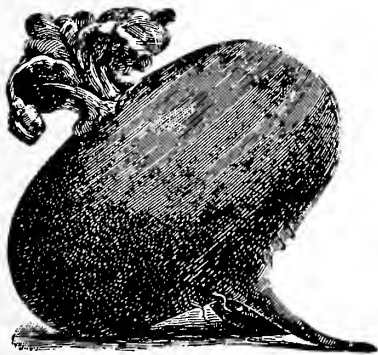
The Fordhook is a one-third heavier cropper than Dreer's, and is destined to supersede it in every way. Qt., 50c.; 4 qts., \$1.75; peck, \$3.25; bushel, \$12.00.

BEETS

All the varieties succeed best on a deep, rich, sandy loam. For early beets, sow as soon as the ground will admit, in drills fourteen inches apart, and thin to six inches in the row. For Winter, sow about the middle of Spring. Soak the seed twenty-four hours in luke-warm water before planting, and sow in freshly prepared ground.

The Sugar and Mangel Wurzel varieties are grown for feeding stock and should be sown from April to June in drills two feet apart, and afterwards thinned out to stand one foot apart in the rows; keep them well cultivated and you will have an abundant crop.

Extra Early Bassano—45 days—This is the largest of the Earliest varieties, and reaches a size fit for the table among the first; will not keep well during the Winter. Flesh coarse grained, but tender and sweet. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.



Crosby's Egyptian

Crosby's Egyptian Blood Turnip—40 days—This matures quicker than any other sort. Roots of fine form, medium size, smooth and dark in color, flesh dark red, fine grained, crisp and tender. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Detroit Dark Red Turnip—Forms a globular, smooth, dark fleshed root with small top. Flesh dark red, with rings of alternate white and red; very tender and sweet, and a popular favorite. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 75c.

Eclipse—A globular crimson sort of very rapid growth. Bright red in color, and of fine flavor. A great improvement on its parent, the Egyptian. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Early Blood Turnip—Tops small, roots blood red, turnip shaped and very tender. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Bastian's Early Turnip—One of the best for the market gardener or for family use; early, quick growth, good shape, and bright red color. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Half Long Blood—60 days—One of the very best, unsurpassed for its Winter keeping qualities. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Improved Long Dark Blood—62 days—The best Winter variety, but apt to be tough when sown too early. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Swiss Chard or Silver Beet—Forms tops only, used for greens. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

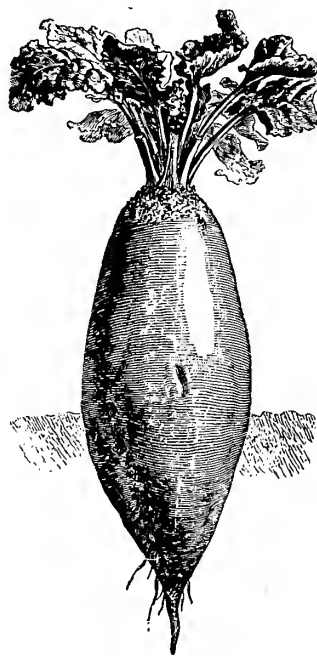
White Silesian Sugar—65 days—Grown extensively for feeding stock; also for extraction of sugar. Oz., 05c.; $\frac{1}{4}$ lb., 20c.; lb., 35c.

Imperial White Sugar—70 days—A greatly improved variety of the White Silesian. Oz., 05c.; $\frac{1}{4}$ lb., 20c.; lb., 35c.

Half Long Blood, Queen of the Blacks—A favorite half long early market and Winter sort, equalling and frequently surpassing the Egyptian. Uniform in quality, and a good keeper, symmetrical in form, and a handsome table beet. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

CATTLE BEETS

Giant Long Red Mangel Wurzel—120 days—Very large, growing well out of the ground, top small for its size; straight, smooth, and of a fine scarlet color. Oz., 05c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.



Long Red Mangel Wurzel Beet

Long Red Mangel Wurzel—A large, long variety, for stock feeding, color light red. Oz., 05c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

Golden Tankard—Large, round, orange colored variety, of excellent quality, which keeps better than the Long Red, producing better crops on shallow soil. Oz., 05c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

Yellow Globe—Is a heavy cropper, of immense size, good shape and small top. Excellent for feeding and succeeds well on any soil. Oz., 05c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

Red Globe Mangel Wurzel—Similar to Yellow Globe, except in color, which is light red or pink. Oz., 05c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

BRUSSELS SPROUTS

Long Island Improved—This is a very desirable vegetable, though very little known in this country. It grows two or three feet high and produces from the sides of the stalk, numerous little sprouts somewhat resembling cabbages; they are used for Fall and Winter greens. It can only be grown to perfection in a good soil and with a long season to complete its growth. The seed should be sown in March or April, in a frame, and the plants transplanted into the open ground and cultivated as cabbage. The plants should be watered and shaded for a week or ten days to give them a good start. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.50.

CABBAGE

There is no vegetable which may be cultivated with more certainty of success than this, and few, if any, that are so generally useful, as it may be made to follow other crops, and will give some return, no matter how poor the soil nor how negligent the cultivation, while it responds so readily to better care that it claims a place in the finest garden, and the attention of the most skilful gardener.

The requisites for complete success—First, good seed; there is no vegetable where the seed has more influence on the quality of the product than this, and the gardeners should invariably select the best procurable. Second, rich, well prepared ground. Third, frequent and thorough cultivation.

For Cabbages, the ground must be highly manured, deeply dug or plowed, and thoroughly worked to insure good full-sized heads. A heavy, moist and fresh loam is most suitable. The early sorts should be sown very early, in hot-beds, hardened off, and transplanted eighteen to twenty-four inches apart, early in the Spring. In the South, sow from the middle of September to middle of October, and transplant into cold frames to preserve through Winter, setting into open ground as early as possible. In transplanting, **they must be set in the ground up to the first leaf no matter how long the stem may be.**

The late Autumn or Winter varieties may be sown in a seed bed, from the middle to the last of Spring, and transplanted when about six inches high, three feet apart each way. Shade and water the late sowings in dry weather to get them up. It is important that the plants should stand thinly in the seed bed, or they will run up weak and slender, and be likely to make long stems. Cultivate frequently throughout the season.

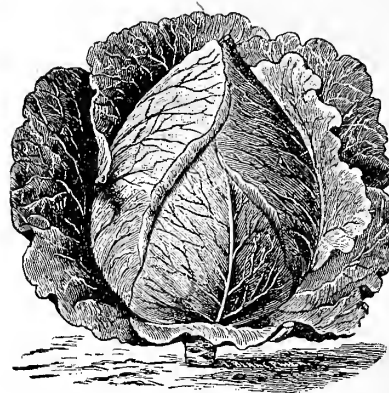
Cabbages should be hoed every week, and the ground stirred deeper as they advance in growth, drawing up a little earth to the plants each time, until they begin to head, when they should be well dug between and hilled up. After they are partly headed, it is the practice of some gardeners to lay them over on one side. Loosening the roots will sometimes retard the bursting of full grown heads.

To preserve cabbages during the Winter, pull them on a dry day, and then turn them over on the heads a few hours to drain. Set them out in a cold cellar, or bury them with the head downwards, in long trenches, in a dry situation. In the Middle States, bury the head and part of the stem in open ground, and place over them a light covering of straw and boards to protect them in severe weather.

First Early

Copenhagen Market—A solid, round-headed extra early of Danish origin.

Is remarkably short stemmed, with heads of large size, and of excellent quality. The leaves are light green. It is the largest of the early round-headed variety, and admits of very close planting. The crop can be cut at one time, as it matures uniformly. Oz., 30c.; $\frac{1}{4}$ lb., 90c.; lb., \$3.00.



Early Jersey Wakefield

Early Jersey Wakefield—Heads very compact, of medium size, varying from nearly round to conical. An early, sure-heading sort, very popular with Eastern market gardeners. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Early York—Heads small, heart-shaped, firm and tender; of very dwarf growth, and may be transplanted fifteen or eighteen inches apart. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Early Large York—Succeeds the Early York, and is equally desirable. It is of large size, about ten days later, more robust, and bears the heat better. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Second Early



Early Winnigstadt

Early Winnigstadt—One of the best for general use, being a sure header, and will grow a hard head under circumstances where most sorts would fail. Heads of regular conical shape, very hard, and keep well Winter and Summer. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Early Dwarf Flat Dutch—95 days—Heads of medium size, solid, flat, grows low on stump, and is of good flavor. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

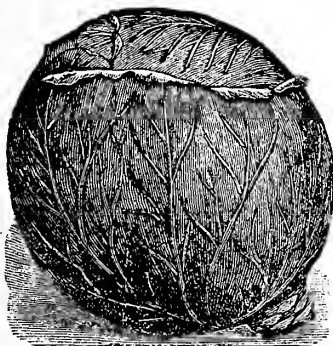
Succession—A second early round-headed sort—very popular with truckers. A week earlier than Early Summer. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Early Summer—Large, very solid, round, flattened and compact heads of excellent quality. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

CABBAGE—Continued**Late****Premium Large Late Flat Dutch**

Premium Large Late Flat Dutch—120 days—Superior to any late cabbage in cultivation. Our stock has been grown for us from carefully selected heads, and is equal to any other strain of this popular variety. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Premium Large Drumhead—120 days—A large Fall or Winter variety, broad, flat or roundhead, short stump, tender and good flavored, and is an excellent keeper. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

**Danish Ball Head**

Danish Ball Head—A medium-sized, round, hard-heading variety of Danish origin. Medium to late in maturing, making an excellent Winter sort, and gaining favor among gardeners. Well worth trying. Oz., 25c.; $\frac{1}{4}$ lb., 65c.; lb., \$2.00.

Improved Drumhead Savoy—The best of all Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid, and closely approaches the Cauliflower in delicacy and flavor. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Red Dutch, for Pickling—An esteemed sort for pickling; it forms very hard, oblong heads, round at the top, and when pure, of a dark red or purple color. Oz., 15c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

CABBAGE PLANTS**Ready May 1st**

Early Jersey Wakefield, Charleston Wakefield, Winngstadt, Early Dwarf Flat Dutch, Burpee's All Head,

Henderson's Succession, Early Summer, All Seasons, Perfection, Drumhead Savoy, Wonderful, Premium Late Flat Dutch, Burpee's Surehead, Improved Late Drumhead, World Beater, Autumn King, Volga or Russian, Danish Round Head, Danish Ball Head, Copenhagen Market.

By express (not prepaid) 500, \$1.25; 1,000, \$2.20.

Per doz. by mail, 15c.; per 100 by mail, 35c.

All plants will be packed in live moss, insuring long shipment. All express shipments guaranteed to reach their destination in good order. No plants shipped on Saturday.

CARROT

The Carrot succeeds best on a light sandy loam, made rich by manuring the previous year. In freshly manured land, the roots often grow prolonged and ill-shaped. It is better to sow as early in the Spring as the ground can be made ready, but if planting is necessarily delayed until late in the season, soak the seed twenty-four hours in tepid water, dry by mixing in sifted ashes or plaster, and sow on freshly prepared soil.

Culture.—Sow in drills to 24 inches apart, using from 4 to 5 pounds to the acre, according to the distance between the rows. It is necessary to sow carrots quite thickly, on account of the young plants not having sufficient strength to come through the ground when sown thinly. Cover one-fourth inch deep and see to it that the soil is well firmed about the seed. As soon as the plants appear use the cultivator or wheel hoe, and do not let the weeds get a start. Thin to 3 to 4 inches apart in the row as soon as the plants are large enough. Gather and store for Winter use like beets or turnips.

One ounce of seed will sow a row 100 feet long. Four to five pounds will sow an acre.

**Orange Danvers Half Long**

Orange Danvers Half Long—65 days—Medium length, very large and heavy yielder, rich dark orange color, smooth and handsome. Oz., 10c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

Early Half Long Scarlet (Stump Root)—45 days—A popular early variety, medium size; flesh bright scarlet, brittle and of good flavor. Oz., 10c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.00.

CARROT—Continued**Improved Long Orange**

Improved Long Orange—The well known standard; roots long, thickest near the crown, tapering regularly to a point, color deep orange. The best for field crop and table use. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., 90c.

Chantenay Half Long—A very desirable variety. Smooth, short, thick, and stump rooted and of a rich orange color. Fine for the home garden. Oz., 10c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

CAULIFLOWER

Culture—Sow for early use about middle September, in a bed of rich clean earth. In about four or five weeks afterwards the plants should be pricked out into another bed, at a distance of four inches from each other each way; these should be encompassed with garden frames, covered with glazed sashes, and boards or shutters. The beds must be so secured, and the tops of the beds so covered as to keep out all frosts, giving them light and air every mild day throughout the Winter; transplant in April into a bed of the richest earth in the garden, at a distance of two feet and a half each way. Keep them well hoed, and bring the earth gradually up to the stems. The late variety matures in the Autumn, and is sown and managed similarly to Winter cabbage, but is not so certain to succeed in this climate.

Early White Snowball—90 to 100 days—The most highly flavored variety grown, and always sure to head. Oz., \$2.25; $\frac{1}{4}$ lb., \$7.50; lb., \$27.50.

Lenormands—Large, late, and short stemmed. Head swell formed. A superior variety. Oz., \$2.25; $\frac{1}{4}$ lb., \$7.50; lb., \$27.50.

Autumn Giant—The best late variety; large, well-formed heads, extra quality, and the best late variety in cultivation. Oz., \$2.25; $\frac{1}{4}$ lb., \$7.50; lb., \$27.50.

CELERY

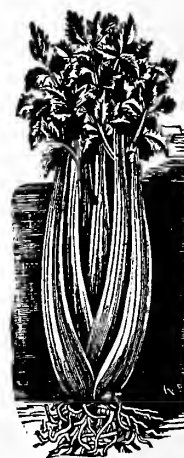
Sow the seed, which is very slow to come up, early in the Spring, in rich, mellow ground, in a situation where it can be protected from the parching heat of the Summer sun; water freely in dry weather. When the plants are

five to six inches high transplant a portion in trenches well manured; the dwarf varieties three feet and the tall four feet between the rows; plant six inches apart in the rows, pressing the earth to the plants. As they advance in growth blanch by earthing up, which should be performed gradually in fine weather, taking care not to bury the heart of the plants. A light dressing of salt applied when earthing up, is beneficial.

**Silver Giant White Solid**

Silver Giant White Solid—The very best tall growing variety, white, very solid, crisp, tender, and superior in flavor. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Boston Market—The most popular variety is the Boston Market. It forms a cluster of heads, instead of a single large one, and is remarkably crisp and tender. A good variety for light soils. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

**Dwarf Golden Heart**

Dwarf Golden Heart—Very fine; when blanched the heart is of a waxy golden yellow, rendering it a most striking and showy variety for either market or private use. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Half Dwarf White Solid—Is of rather a yellowish white when blanched, and entirely solid, possessing the peculiar nutty flavor of the dwarf kinds, with more vigor of growth. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

CELERY—Continued

Dwarf White Solid—Dwarf, white, of stiff, close habit; solid, crisp, and juicy. Keeps in good order later in the season than any other variety. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Golden Self-Blanching—A dwarf sort, with numerous heavy and solid stalks, easily blanched. Heart solid, and with the leaves of a beautiful golden yellow. Oz., 50c.; $\frac{1}{4}$ lb., \$1.75; lb., \$6.00.

White Plume—100 days—The stalks and heart are white, of good eating quality, crisp, solid, and of nutty flavor; is ornamental, resembling an ostrich feather. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Giant Paschal—120 days—Is from the Golden Self-Blanching variety, but is somewhat longer growing. About 2 feet, very hard, thick, and crisp, without any bitter flavor. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Celeriac, or Turnip Rooted—The root is cooked and sliced, used with vinegar; makes an excellent salad. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., 90c.

Soup, or Flavoring Celery—Old seed for flavoring soups, stews, etc., not for sowing. Oz., 05c.; $\frac{1}{4}$ lb., 10c.; lb., 30c.

CELERY PLANTS

Ready June 20th

White Plume, Giant Paschal, Winter Queen, Boston Market, Golden Self-Blanching, Golden Heart, Winter King, Columbia. By Express (not prepaid)
500, \$1.40; 1,000, \$2.50.

Per doz. by mail, 25c.; per 100 by mail, 55c.

All plants will be packed in live moss to insure long shipment. All Express shipments guaranteed to reach destination in good order. No plants shipped Saturday.

SUGAR CORN

Judging from the long and constantly increasing lists of corn which annually appear in the Catalogues issued by the various Seed Houses throughout the country, the reader would be led to believe that they were in innumerable variety, more especially amongst the Early sweet and other kinds for table use. This, however, is not the case, as upon testing, most of them will be found identical, and the long lists will dwindle down to a few pronounced and distinct varieties; in fact, the difference exists more in name than in anything else. We have, therefore, in the present Catalogue, confined ourselves to those distinct and standard varieties which the practical experience of market and family gardeners has decided to be the best for market and family use. Should other kinds appear which are really valuable they will be placed in stock, and we will gladly procure for our customers any varieties from other Catalogues which they may desire to test.

Corn should not be planted until the ground has become sufficiently warm, as cold and wet causes it to rot. Planted every two weeks, until the middle of July, will give a succession throughout the season.

First of All—The very earliest grown for the Philadelphia market Qt., 20c.; 4 qts., 60c.; peck, \$1.00; bushel, \$3.50.

Extra Early Adams—62 days—The old standard, early sort, and its earliness its principal recommendation. Not a pure sugar. Qt., 20c.; 4 qts., 60c.; peck, \$1.00; bushel, \$3.50.



Early Minnesota Sugar

Early Minnesota Sugar—New, and reported the best Early Sugar Corn grown. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Crosby Sugar—This variety follows the Extra Earlies as one of the most valuable for an early crop. Its habit is dwarf, produces medium sized ears of from ten to twelve rows. Desirable in every way. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.

Hickox Early—An Extra Early Sugar Corn, ears very large for an early variety, and said to be the earliest Sugar Corn known. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Black Mexican—Matures early. Has a peculiar black and very sweet grain. Worth trying. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$4.50.

Early Evergreen—A week or ten days earlier than Stowell's Evergreen, and of as good a quality. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

Egyptian—90 days—A new large variety, quite late, quality good, and resembles, in some respects, the Evergreen. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.



Early Shaker Sugar

Early Shaker Sugar—Introduced by us to the Philadelphia market many years ago; grows fine long ears for an early variety, and is unsurpassed by any of the other early kinds. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.50.

SUGAR CORN—Continued

Kendel's Early Giant—A second early variety, maturing in about 68 days. An improvement over the old Corey. Ears 6 to 8 inches, with large broad white grains of rich sugary flavor, stalks short, bearing one or two ears. A very desirable sort. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.

Country Gentleman—70 days—Resembles the Shoe Peg on a larger scale, surpassing it in superior qualities, viz: deepness of grain, smallness of cob and richness of flavor. Will produce from three to four ears to the stalk. Much larger than the Shoe Peg. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.

Shoe Peg—The kernel is small and very long, white and exceedingly sweet and tender. Is becoming more popular every year. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.



Large Late Mammoth Sugar

Large Late Mammoth Sugar—85 days—The largest of all varieties, productive, fine flavor and sweet. A very desirable variety for the family garden. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.

Burpee's White Evergreen—Similar to Stowell's Evergreen, ears fully as large, but about 5 days earlier in maturity. The grains remain tender considerably longer than Stowell's. It retains its whiteness when canned, having no yellow tinge as has the Stowell's. Qt., 20c.; peck, \$1.25; bushel, \$4.50.

Improved Stowell Evergreen—80 days—Has no superior as a late table variety; ears large, and remains green longer than any other kind. Qt., 20c.; 4 qts., 70c.; peck, \$1.25; bushel, \$4.00.

Golden Bantam—A new introduction of merit—yellow, and very sweet. Small ears well filled out. Very desirable for first crop. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.00.

CORN—Field Varieties

Eight Rowed Yellow (Canada)—Ears large, and bright yellow color, generally used for re-planting, very early. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.85.

Longfellow, Long Yellow—90 days—Ears averaging 13 inches. Very prolific. Narrow, small cob. Used quite frequently for re-planting. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Mammoth Chester County—One of the very best for field culture, fine large ears, and producing a large quantity of fodder. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Blount's Prolific—A plump, white sort bearing four to six ears to the stalk, very productive and fine for ensilage. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Mammoth Golden Dent—A cross between the Mammoth Chester County and the Oregon; we think this the most productive variety grown. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Mastodon—An early dent, of strong growth. Ears and grain large. A strong and quick grower, very productive, grains white and yellow. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Golden Beauty—Matures as early as the Golden Dent and surpasses it in size, beauty of grain and productiveness. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Leaming Early Dent—An early, popular variety of Yellow Corn, medium ear, small grain, weighty and productive. Excellent for grinding. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

Hickory King—Remarkable for its large grain and small cob. A vigorous grower, ears round and of good size, two to four ears to the stalk, grain pure white. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.85.

White Ensilage—Sown broadcast, or drilled in close rows, a handsome growth of green forage can be grown. If cut just when flower spike shows it is in its most nutritious condition. Qt., 15c.; 4 qts., 30c.; peck, 50c.; bushel, \$1.75.

POP CORN

A few years ago Pop Corn was grown only in gardens, rather as a side issue from the main business of the farm. It was plentiful throughout New York and the New England States.

Now it is grown as a special crop, great quantities are raised in the Central Western States, and owing to the careful selection of seed and thorough cultivation covering a series of years, this district now produces a quality of Pop Corn superior to any heretofore raised, the White Rice Pop Corn being the most popular variety.

We can furnish it in large or small quantities. 1 lb., 10c.; 3 lbs., 25c.; 100 lbs., \$4.00.

POP CORN POPPERS

Small size (5 x 7 inches), 10c each.

Large size (6½ x 9½ inches), 20c each.

CORN SALAD

Broad Leaved—Used as a small salad throughout the Winter and Spring. Sow early in the Spring in drills one foot apart, and keep weeds down by frequent hoeing. For Winter and early Spring use, sow in drills in August and September. Cover with straw on approach of Winter. Oz., 07c.; ¼ lb., 20c.; lb., 55c.

CRESS—Pepper Grass

Curled—Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season. Oz., 10c.; ¼ lb., 20c.; lb., 50c.

Broadleaved—A favorite salad in general use. Oz., 10c.; ¼ lb., 20c.; lb., 50c.

Water—Used as a salad in Spring and Fall, or as a garnish during Winter. Start the seed in pans or moist earth and transplant to shallow water or a running brook. Oz., 30c.; ¼ lb., \$1.00; lb., \$3.50.

CUCUMBER

The Cucumber can be grown by any one who has a few square yards of soil with an exposure to the sun. For early use, make rich hills of well rotted manure the latter part of Spring, planting a dozen or more seeds, covering one-half inch deep, pressing the earth firmly over them. When danger from insects is over, pull all but three or four of the strongest plants; make the hills from four to six feet apart. For pickles, plant as late as middle of July.

Jersey Pickle—One of the very best of pickling cucumbers, vines vigorous and productive, fruit long, firm and crisp; when small used for pickles, when large for sweet pickles. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 85c.

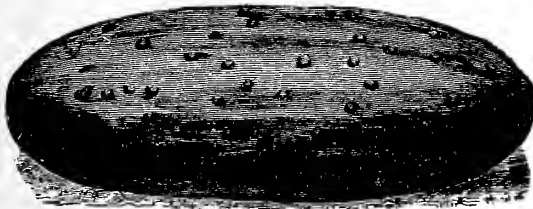
Jersey Prolific—60 days—Earliest and hardiest productive variety, the fruit of small size and produced in pairs. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 85c.

Early Frame—Fruit is straight and well formed, flesh tender, though somewhat seedy; when young makes excellent pickles. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., 90c.



Improved Early White Spine

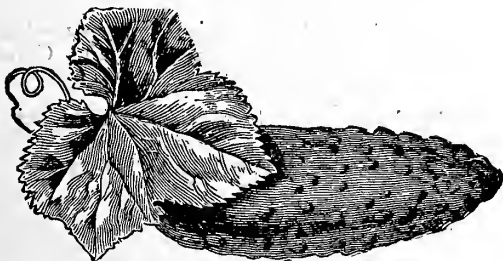
Improved Early White Spine—60 days—The very best sort for table use; vines vigorous, fruit straight and handsome, color light green, with few white prickles; tender and of excellent flavor. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 85c.



Improved Long Green

Long Green (Jersey Pickle)—The best pickling variety, dark green color, tender, crisp, and productive. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 80c.

Short Green Pickle—50 days—This is the favorite Western pickling variety, and is growing in favor here every season. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 85c.



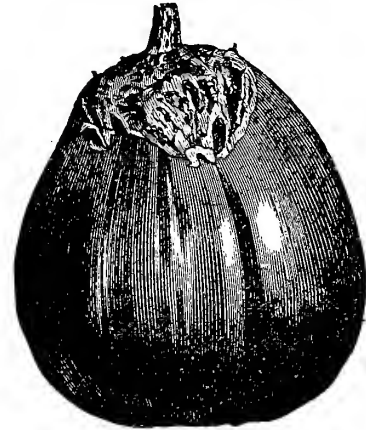
Gherkin (or Burr)

Gherkin (Burr Pickle)—Small, oval shaped, prickly variety, used only for pickling. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.20.

EGG PLANT

Sow in hot-beds early in March; transplant middle of May to first of June, in a rich, warm piece of ground, about thirty inches apart. Draw the earth up to their stems when about a foot high. Egg-plant seed will not vegetate freely without substantial heat, and if the plant gets the least chilled in the earlier stages of growth, they seldom recover. Repeated sowings are sometimes necessary. Care should be taken in cutting the fruit so as not to disturb the roots, which injures the plants. Matures for table in 120 days.

Early Long Purple—This is one of the earliest varieties, hardy and productive, fruit long and of superior quality. Oz., 35c.; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50.



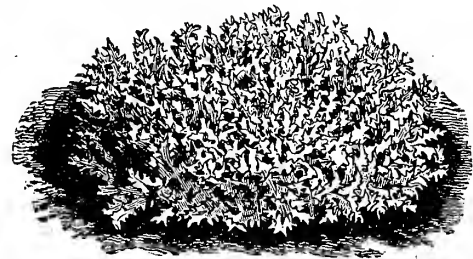
Improved N. Y. Purple Egg Plant

Improved New York Purple—The best variety in cultivation; fruit large, deep purple color, occasional stripes of green around the stem; of very superior flavor. Oz., 35c.; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50.

Black Pekin—Fruit black, large, smooth and glossy. Round to globular. Oz., 35c.; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50.

ENDIVE

An excellent Fall and Winter salad, when Lettuce is getting scarce. Sow late in the Spring to middle of Summer in shallow drills, and thin out to a foot apart; blanch by tying the leaves together near the top.



Green Curled Endive

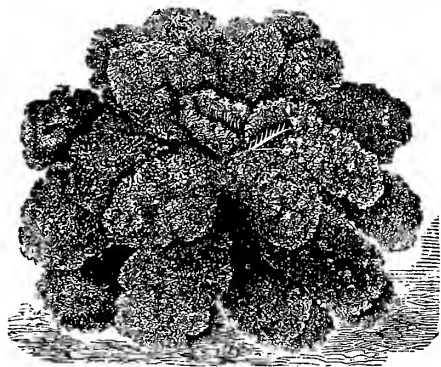
Green Curled—Is the hardiest variety, with beautifully curled, dark green leaves, which blanch white, and are very crisp and tender. Oz., 10c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

Broad Leaved Batavian—Has broad, thick, plain or slightly wrinkled leaves. It is principally used for cooking, and making a larger head, is preferred for stews and soups; if the outer leaves are gathered and tied on the top, the whole plant will blanch nicely, and make an excellent salad for the table. Oz., 10c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

KALE—Borecole

Sow from May to June, and set out the plants in July, in good rich soil; cultivate same as cabbage. For Spring use sow in September; protect during Winter with covering of straw. It takes 50 days to produce a crop fit for cutting.

Green Curled Scotch—About two feet high, leaves dark green, curled and wrinkled, stands Winter without protection. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.



Dwarf German Greens or Kale

Dwarf German Greens—Makes excellent greens for Winter use, dwarf and easily protected during the Winter. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

KOHL-RABI

Turnip Rooted Cabbage—Grows on a stalk in the shape of a bulb 2 to 3 inches in diameter, the leaves protruding from the sides of the bulb. Requires a light, rich soil. Sow in Spring in rows $1\frac{1}{2}$ feet apart, thinning down to 8 inches. For Fall, plant latter part of July. One ounce will plant 150 feet of drill. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

LEEK

The Leek is hardy and of easy culture; sow early in Spring in trenches eight inches deep, and have the soil at the bottom fine and rich; thin six to eight inches apart, and when the plants are twelve inches high, gather the leaves together and fill the trench so as to blanch the lower part of the plant.

London Flag—90 days—This is the best variety, and succeeds better in this country than any other. Oz., 15c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

Musselburgh—Foliage fan-shaped and strong in growth. Large in size, and leaves broad. A fine market variety. Oz., 15c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.10.

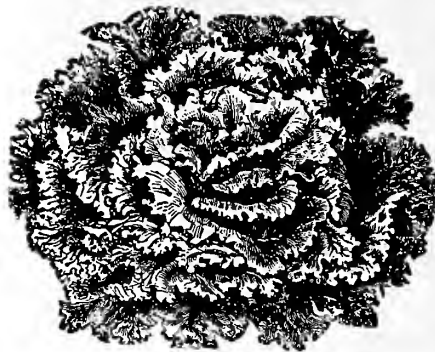
LETTUCE

There is no vegetable which is more universally used than this. It is of easy culture, and thrives best in rich, moist soil. Its quality depends largely upon rapid and vigorous growth; to secure this, have the soil rich and mellow, with frequent surface cultivation and an abundant supply of water. For an early crop sow in September in the open ground; transplant when large enough into cold frames; protect during the Winter in same manner as early cabbage; plant out early in April, or sow in hot-beds in February or March, and afterwards transplant. Forty to fifty days from seeding to maturity.

Loose-Leaved Varieties

Early Curled Silesian—An early variety of strong growth, leaves large, light yellow and wrinkled. It does

not form a head, but is the best variety for cutting when young. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.



Early Curled Simpson (Blank Seeded)

Early Curled Simpson—A black-seeded, very large loose-leaved sort, and larger than ordinary Simpson. Excellent for table. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

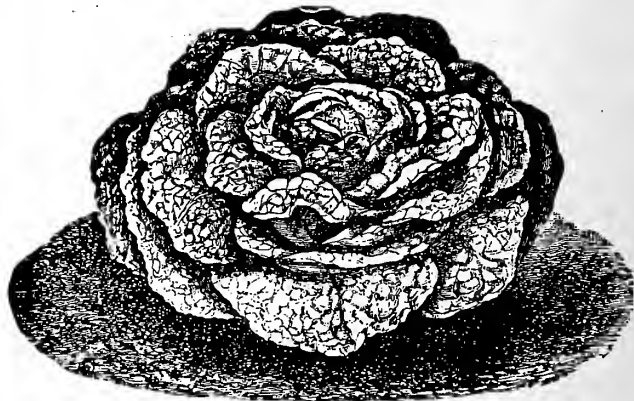
Romaine, Cos or Celery Lettuce—Quite distinct from the ordinary sorts in being erect in growth, crisp, tender and delicate in flavor. Oz., 15c.; $\frac{1}{4}$ lb., 35c.; lb., \$1.00.

Heading Varieties

Large Drumhead—Heads large and fine, pale green without, and white at centre; crisp and tender, fine Summer variety. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

California Cream Butterhead—A good all around Summer Lettuce. Heads large, compact and well formed. Has a decided buttery taste. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

Tennis Ball (Black Seed)—An early sort for forcing, producing a small, compact head, with few outside leaves. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.



Big Boston

Big Boston—Heads large, white, and very solid, stands heat of Summer, also excellent for Autumn. Color, light green. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

Boston Market—An early sort good for forcing or in the open ground. Heads large, white, and very solid. Always crisp and tender, and an attractive sort for market or table. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

White Dutch Butterhead—The best variety for cultivation in the latitude of Philadelphia, fine large heads, and stands the heat of Summer well. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

Royal Cabbage—Large, crisp and tender; a good Summer variety. Oz., 15c.; $\frac{1}{4}$ lb., 40c.; lb., \$1.25.

LETTUCE PLANTS

Ready May 1st

Big Boston, White Botter Cabbage, Romaine, or Cos.
By Express (not prepaid) 500, 85c.; 1,000, \$1.50.
Per doz. by mail, 20c.; per 100 by mail, 40c.

All plants will be packed in live moss to insure long shipment. All Express shipments guaranteed to reach destination in good order. No plants shipped on Saturday.

MELON—Cantaloupe

Plant early in May, when the ground has become warm and dry, in hills six feet apart each way; use well rotted manure, and if plants grow very rank, finer fruit will be secured by trimming off the ends of the shoots when about three feet long. Do not plant near pumpkins, squashes or cucumbers, as they will mix with and injure the quality of the melons.

Golden Jenny—Small, and very early; globe-shaped, skin green, ribbed and netted, flesh light green and of fine flavor. Oz., 10c.; ¼ lb., 25c.; lb., 80c.

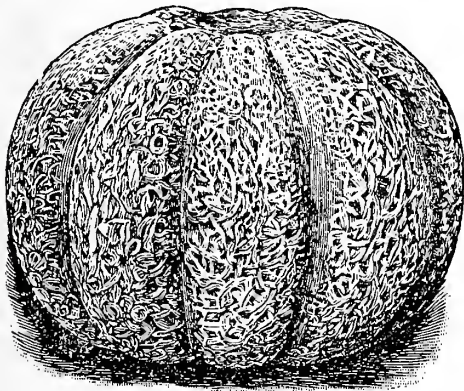
Extra Early Rough—A handsome, fine flavored sort resembling the California in shape, but smaller and more roughly netted. Oz., 10c.; ¼ lb., 25c.; lb., 75c.

Jenny Lind—65 days—The earliest green fleshed melon, and the sweetest variety in cultivation; flesh green, quite small, slightly ribbed and well netted. Oz., 10c.; ¼ lb., 25c.; lb., 75c.

Netted Nutmeg—Oval in shape; netting rough. A melon of fine flavor. Oz., 10c.; ¼ lb., 30c.; lb., 75c.

Hackensack—A popular large sized melon, flattened at the poles, deeply netted and ribbed, flesh green and well flavored. One of the best for shipping, and is a favorite with market gardeners. Oz., 10c.; ¼ lb., 30c.; lb., 75c.

Montreal—Largest of the nutmeg varieties; averaging a weight of 15 lbs., nearly round, flattened at the ends, deeply ribbed, green, netted skin. Flesh green, thick, and of fine flavor. Oz., 10c.; ¼ lb., 30c.; lb., 75c.



Fordhook

Fordhook—A fine, large, early ripener. Skin dark green mixed with stripes of lighter green. Thin rind and tough skin, well adapted for shipping. Flesh bright red, crisp and sweet. Flavor one of the finest. Oz., 10c.; ¼ lb., 30c.; lb., 85c.

Jenny Lind Improved—65 days—Resembles the old variety only that it matures earlier and is better filled out, roughing up better, and keeping fully a week longer than any other variety. Is a handsome green fleshed sort and invaluable for a first early; and of a delicious quality. Oz., 10c.; ¼ lb., 30c.; lb., 80c.

Rocky Ford—70 days—The flesh is deep and thick, and light green in color, except next the seeds, where it inclines towards yellow. The flavor exceedingly fine. The skin is green, regularly ribbed and thickly netted. It is a firm, solid melon and will carry in perfect condition for a week or more after its removal from the vine. It is a heavy cropper and is in wide favor as a market melon. Oz., 10c.; ¼ lb., 25c.; lb., 70c.

MELON—Watermelon

Plant in hills eight to ten feet apart each way. Plant eight or ten seeds in a hill, and finally, when danger of insects is past leave but three strong plants.

Ice Cream—Medium size, scarlet flesh and very sweet; an excellent variety. Oz., 10c.; ¼ lb., 15c.; lb., 50c.

Mountain Sweet—An old sort still holding its own in the public favor. A first class productive melon, of large size, skin dark green, flesh a rich crimson, very sweet, and of fine flavor. Seeds gray. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Tom Watson—An early, large, oblong, dark green melon, with thick netting. An introduction from one of the best melon districts in the South. Rind thin, but tough, making it a favorite shipping sort. The flesh is firm, and of a bright red color, delicious, sweet and melting. An excellent sort for the private or market gardener. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Gypsy or Rattlesnake—One of the large varieties. stands shipment long distances better than any other. Fruit long, smooth, distinctly striped and mottled light and dark green. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Orange—Small size, flesh red, tender and sweet; flesh separates from the rind like an orange. Oz., 10c.; ¼ lb., 15c.; lb., 50c.

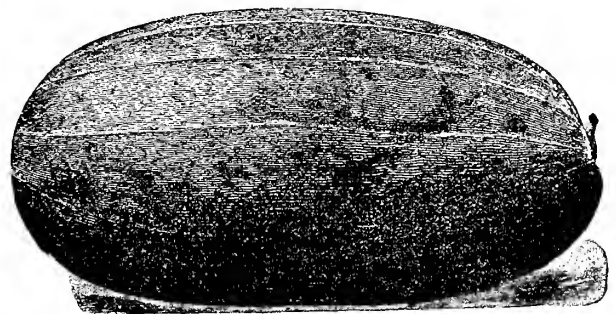
Black Boulder—New, handsome oblong variety. skin very dark, deep scarlet flesh, sugary and of excellent flavor. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Light Icing—75 days—Very light green skin, flesh bright red, crisp and sugary, excellent quality. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Dark Icing—Skin dark green; in other respects like the preceding melon. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

Kolb's Gem—A recent introduction. Has a hard rind and is a good shipper. Shape nearly round. Flesh red and of good quality. Oz., 10c.; ¼ lb., 15c.; lb., 50c.

Black Spanish—A very solid thin-rinded melon. Scarlet flesh. Oz., 10c.; ¼ lb., 20c.; lb., 60c.



Kleckley's Sweets

Kleckley's Sweets—A handsome melon for both the private and market garden. Shape oblong, skin dark green, and slightly mottled, thin rind, flesh bright scarlet, very sweet, crisp and melting. Heart solid. One of the best melons grown. Oz., 10c.; ¼ lb., 20c.; lb., 60c.

WATERMELON—Continued

Citron Water Melon—This is the well known melon for making preserves or condiments. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 50c.

Dixie Watermelon—85 days—Destined to supersede the Gem. If you want the best melon grown plant the Dixie. It is unsurpassed in fine eating qualities. Form long to half long, diameter large; rind dark with lighter stripes. Early as the Gem, equally productive. Flesh deep red; unequalled as a shipper. We have had seed of the best stock grown especially for our trade. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

MUSTARD

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach. Matures in 30 to 35 days.

White English—This is the kind usually preferred for salad. The leaves are light green, mild and tender when young; seed light yellow. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

Brown Italian—This is a larger plant than the preceding, with much darker leaves; seed brown and more pungent. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 35c.

NASTURTIUM

Used as a pickle and highly esteemed. Sow in April and May, in drills two inches deep, five or six inches apart, and provide them with rods. It may also be grown to advantage as an ornamental climbing plant.

Dwarf—Very ornamental for the vegetable as well as the flower garden. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., 80c.

Tall—The seed pods are used for pickling or for garnishing. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

OKRA, OR GOMBO

The green capsules of this plant are used in soups, stews, etc., to which they impart a rich flavor and are considered nutritious. Plant the seed about the middle of May, in hills or drills. Plant the seed thickly, as it is liable to rot in the ground; rich ground is necessary; 60 days from planting to maturity.

Tall White—About four feet high; pods eight to ten inches long. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

Dwarf White—Two and a half feet high; pods five inches long; very productive. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

ONION

Culture—Onion seed should be sown as soon as possible in the Spring, even if the weather is cold, so the soil works up well. This gives them a good start ahead of the weeds, and before dry weather sets in. After thoroughly pulverizing the soil, sow thinly, four or five pounds to the acre, in drills, 14 to 16 inches apart, and about one-quarter inch deep, in strong land, well manured, keeping them well hoed and free from weeds.

The Silver-skin and Yellow Strasburg are principally grown (for sets) in this vicinity. Sow the seed early in the Spring, very thickly in beds or drills. As soon as the tops die off in the Summer, remove them to a dry, airy place, and early in the following Spring replant in rows about two inches apart, the rows wide enough apart to

admit of hoeing. The onions by this process are obtained of a large size early in the season. We can also supply the sets themselves early in Spring, at current market prices.

The Large Red Wethersfield may be reared to full size during the first season, by sowing in drills early in March, in strong land, and thinning them out to stand two or three inches apart, keeping them well hoed.

White

Extra Early White Pearl—A transparent, waxy, early variety, flat, and of very mild flavor. In some sections attaining a size 5 to 6 inches in diameter. Oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.



Silver Skin

Silver Skin—85 days—Large white flat onion of mild flavor; fine for early Winter use, and very desirable for pickling. It is the best keeper of the white varieties. Oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

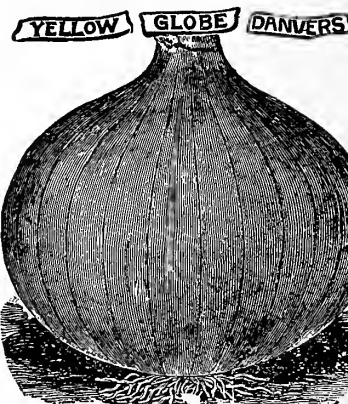
Queen—A silver-skinned variety, of mild flavor, early, a good keeper, and an excellent pickling onion. Oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

White Portugal—Grows to good size, mild and sweet, resembling the ordinary Silver Skin. When sown thickly very desirable for pickling. Oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

Southport White Globe—In shape same as Yellow or Red Globe, but milder—not so good a keeper. Oz., 15c.; $\frac{1}{4}$ lb., 50c.; lb., \$1.50.

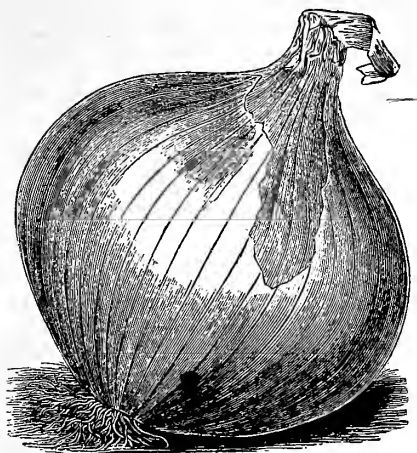
Yellow

Yellow Strasburg—The old popular Philadelphia variety; not as strong flavored as the Red; a first rate keeper, and valuable for shipping. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.



Yellow Globe Danvers

Yellow Globe Danvers—115 days—A fine variety, originating in Danvers, Mass.; above the medium size, oval shaped; skin yellowish brown; flesh, white, mild and well flavored; very productive. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

ONION—Continued**Prizetaker**

Prizetaker—One of the best and most popular among the Yellow Globes. Of a bright clear straw color, thin-necked, and very attractive. Fine in flavor and a desirable sort. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

Red

Extra Early Red.—100 days—A large yielder, of good form and flavor, deep red color, and keeps well. Ten days earlier than the Wethersfield. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., 90c.

Large Red Wethersfield.—110 days—The standard Eastern variety. Grows to large size directly from the seed; skin deep purplish red; form round, flat; flesh purplish white; and stronger flavored than any of the other kinds. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

ONION SETS

The Onion sets grown in the vicinity of Philadelphia are recognized everywhere as the best in the country; they are more solid and brighter, and their keeping qualities much better than those grown elsewhere. The best varieties are named below. Onions grown from sets come into market long before those grown directly from the seeds, and in consequence much higher prices are realized from them.

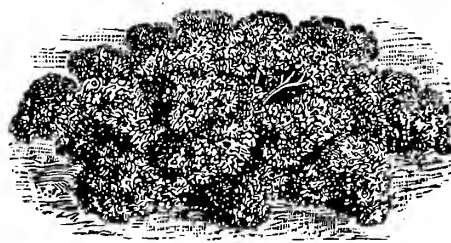
Extra Early Red. Strasburg. Yellow Danvers. Silver Skin. (Market Price.)

Winter Onions.—(Egyptian, Perennial, or Tree Onions).—An unusually hardy variety in the colder States, remaining in the ground with safety all winter. It starts early in the Spring and may be bunched and marketed several weeks before any other variety. The quality is inferior, but the bulbs find a ready sale when other varieties of onions are wanting. Qt., 15c.; peck, 50c.; bushel (of 28 lbs.), \$1.75.

PARSLEY

Sow early in April in rows. Soak the seed a few hours in warm water before sowing, or it may lay two or three weeks in the ground before vegetating. A few Radish Seed mixed with the seed when sowing will mark the rows and facilitate weeding. One ounce to 150 feet of drill. Make open air sowing in April.

Plain or Single.—Dark green color, and very hardy. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

**Double Curled Parsley**

Double Curled.—A dark green market variety of dwarf habit. Stands the winter better than other varieties, but is less curled. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Moss Curled.—Leaves bright green, curled and crested like fern or moss, very ornamental for garnishing or garden decoration. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

PARSNIP

This well-known culinary vegetable does best on a deep, rich, sandy soil; fresh manure should not be used, as it is apt to make the roots coarse and ill-shaped. The seed is sometimes slow to germinate; it should be sown early as possible, covering half an inch deep, and the soil pressed firmly over the seed; thin out so that the plants will stand four inches apart.

**Sugar Parsnip**

Sugar or Hollow Crowned.—80 days—The very best for table use, very productive. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 50c.

PEAS

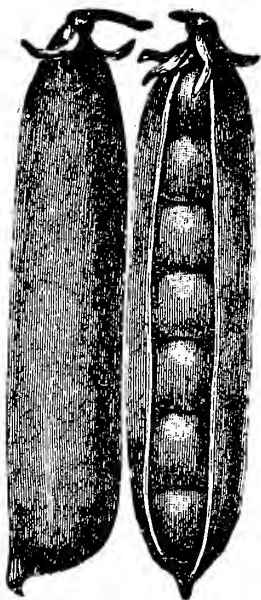
The Pea is so generally known that it is needless to give any description of it. There are many new varieties coming out every year, most of which turn out to be no better than the older sorts. We have carefully culled them over, and our list will be found to contain all that are really valuable. The Pea matures earliest in a light, rich soil; but for general crop, a rich, deep loam will be found best. The Extra Early varieties should be sown as soon as the ground can be worked in the Spring, and continue every two weeks for a succession. The tall varieties require brush stuck in between rows. The wrinkled varieties are superior, more delicate in flavor, and remain longer in season than the smooth sorts, but are not so hardy.

PEAS—Continued

The dwarf varieties suit best for small gardens, and can be planted in rows one foot apart. One quart for 75 feet of drill, two to three bushels to the acre.

First Early

Improved Premier Extra Early Pea.—48 days—This is undoubtedly the best and earliest Pea grown. Qt., 25c.; 4 qts., 75c.; peck, \$1.40; bushel, \$5.00.



Mingle's Extra Early

Mingle's Extra Early.—48 days—For family use this is probably equal to the Improved Premier; it does not ripen so evenly, but keeps in bearing longer. Qt., 25c.; 4 qts., 75c.; peck, \$1.40; bushel, \$5.00.

First and Best.—A desirable Extra Early. Vine 3 feet, and a strong grower, continues in bearing as long as other Extra Early Sorts. Qt., 25c.; 4 qts., 75c.; peck, \$1.40; bushel, \$5.00.

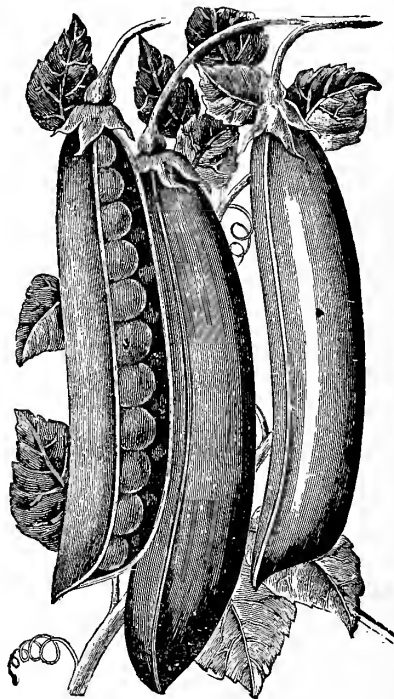
Nott's Excelsior.—50 days—A fine dwarf wrinkled sort, maturing as early as most smooth varieties. Very tender and of fine flavor. Pods 2½ inches. Vine 14 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

American Wonder.—52 days—A hybrid between Champion of England and Little Gem; it is an enormous cropper, and ripens in about fifty days from germination. Pods 2½ inches. Vine 10 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Philadelphia Extra Early.—Form of extra early. Sold in some sections as Extra Early. Qt., 25c.; 4 qts., 75c.; peck, \$1.40; bushel, \$5.00.

Gradus.—The greatest advance, and one of the most desirable sorts introduced during the last fifteen years, having large handsome pods, nearly as large as Telephone, and of similar shape, well filled with large peas, sweet, tender, and of fine flavor, ripening with the earliest. No other pea introduced for years has met with so extensive sale and commanded so high a price. Very quick to germinate and matures with the earliest sorts; with quick, rich, warm soil and favorable conditions fairly productive. Foliage large and luxuriant, pale green in color; pods long, straight, slightly rounded at the point seed; large, wrinkled, cream color, tinged with green; height 3 feet. Qt., 25c.; 4 qts., 85c.; peck, \$1.60; bushel, \$6.00.

Sutton's Excelsior.—A marked improvement in the dwarf wrinkled class. Similar in habit of growth to Nott's Excelsior, but bearing very large, broad pods filled with large peas, tender and of exquisite flavor. As a wrinkled sort it leads in earliness, with much larger and handsomer pods than any dwarf early wrinkled pea yet introduced. It is a pea of first-class merit, and a good cropper. Pods 3 inches long, broad, straight and well filled. Seed, pale green, wrinkled. Vine 15 inches. Qt., 25c.; 4 qts., 85c.; peck, \$1.60; bushel, \$6.00.



Alaska

Alaska.—An extra early, vine about 2 feet high, seed green and round, in well filled pods, produced in abundance. Excellent for market or family use. Qt., 25c.; 4 qts., 75c.; peck, \$1.40; bushel, \$5.00.

Laxton's Prolific.—Height 3 feet, an extra early. Pods 3¼ inches and blunt, very prolific and well filled; seed wrinkled, cream color tinged with green. Vine, 3 feet. Qt., 25c.; 4 qts., 85c.; peck, \$1.60; bushel, \$6.00.

Ameer.—Similar to Alaska, but not quite so early. Vine a little longer, pod not quite so well filled and somewhat light green dented. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Second Early

McLean's Little Gem.—Highly recommended for garden cultivation; quite dwarf, and productive. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

McLean's Premium Gem.—An improvement on the Little Gem, being larger and more productive. Does not ripen quite so early, is very luscious in flavor, and is a general favorite. Pods 2½ inches. Vine 14 to 16 inches. Green wrinkled seed. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Advancer.—55 days—A green wrinkled variety maturing in from fifty to sixty days, producing an abundance of well filled broad, long pods, considered one of the best of its kind. Seed green, wrinkled. Pods 3 inches. Vine 20 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

PEAS—Continued

Abundance.—Very prolific in long, round well filled pods of delicious flavor. Vine, 20 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Potlatch.—A vigorous growing, half-dwarf variety of luxuriant, strong foliage of dark green color. Pods $3\frac{1}{2}$ inches long, of medium green color, broad, and pointed at the ends. Seed large green and wrinkled. Straw 24 inches long. Qt., 25c.; 4 qts., 85c.; peck, \$1.60; bushel, \$6.00.

Horsford's Market Garden.—60 to 65 days—An old favorite, of delicious flavor; foliage dark, and continues long in bearing, a universal favorite. Pods $2\frac{1}{2}$ inches. Vine, 22 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Fillbasket.—Height 30 inches, of branching habit; pods well filled and therefore indispensable to the market gardener, and large croppers. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Laxtonian.—Of vigorous growing habit, luxuriant foliage of dark green color. Large seed, white and green. Pods $3\frac{1}{2}$ inches long, broad and pointed at the ends. This is a fine half-dwarf wrinkled sort. Qt., 30c.; 4 qts., \$1.10; peck, \$2.10; bushel, \$8.00.

Late

Dwarf Champion.—44 days—Very much liked by those who have tried it. In quality and flavor equal to Champion of England, and the vine only 2 feet. Equal to Little Gem. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Everbearing.—A fine wrinkled pea, about 2 feet high, well adapted for late summer and autumn. A continuous bearer, as its name indicates. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Pride of the Market.—60 days—Habit of growth and general appearance, both of vine and pod closely resemble the Stratagem, only deeper in color, and ripening a week later. Pods $3\frac{1}{2}$ inches. Vine, 18 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Daisy or Dwarf Telephone.—Among the medium early dwarf sorts, ripening a week ahead of Stratagem. It is a most desirable pea on account of the large size, beautiful shape and fine quality of its well-filled pods, containing 6 to 9 tender sweet peas. Seed, green, wrinkled. Pods 4 inches. Vine, 18 inches—very vigorous and quite prolific. Qt., 25c.; 4 qts., 85c.; peck, \$1.60; bushel, \$6.00.

Champion of England.—Universally admitted to be one of the richest and best flavored Peas grown; height four to five feet; seed whitish green and shriveled, and a profuse bearer. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Stratagem.—Extra large pods of large tender peas, high, seed blue, wrinkled. Pods 4 inches. Vine 20 inches. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Improved Telephone.—One of the recent introductions from England, where it is highly prized; grows about three feet high, and is the best tall Pea in existence, an enormous bearer, producing straight, showy pods, containing from nine to ten peas in a pod. Qt., 25c.; 4 qts., 80c.; peck, \$1.60; bushel, \$5.50.

Long Island Mammoth.—Very popular with the farmers in most sections who want a large handsome pod of deep green color that carries well. Is becoming more popular every year. Height 3 feet. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Yorkshire Hero.—Vines stout, about two feet high, pods broad and well filled, large Peas; hardy, productive, and superior flavor, and will be preferred to any other, by those who want a rich marrow-like Pea. Qt., 25c.; 4 qts., 80c.; peck, \$1.50; bushel, \$5.50.

Large White Marrowfat.—About five feet high, and of strong growth; pods large, round and well filled; is undoubtedly, one of the greatest bearers in field or garden. Qt., 20c.; 4 qts., 65c.; peck, \$1.25; bushel, \$4.00.

Large Black-Eyed Marrowfat.—A late variety, well known on the Philadelphia market as a prolific bearer, and is recommended as one of the very best Marrowfat varieties. Qt., 20c.; 4 qts., 65c.; peck, \$1.25; bushel, \$4.00.

Field Sorts.—We keep in stock all the varieties used for soiling or ploughing in as green manures; a practice which is becoming quite general in this latitude. See pages 6 and 10.

PEPPER

Sow in hot beds in March, or in a warm border early in May, transplant and thin out to stand sixteen or eighteen inches apart; hoe frequently, to keep down the weeds. Edible in 100 to 120 days.

Bull-Nose.—A large sort, of square form, mild, thick and hard; suitable for filling with cabbage, and for a mixed pickle. It is notwithstanding its size, one of the earliest varieties. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Ruby King.—Fruit $5\frac{1}{2} \times 3\frac{1}{2}$, bright red in color and of distinctively mild flavor. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.



Large Sweet Spanish (or Bell) Pepper

Large Sweet Spanish or Bell.—Somewhat resembling Bull-Nose, but much larger. Early and desirable. oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Long Red Cayenne.—Pod long, slim and pointed; color, bright red and very pungent. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Sweet Mountain.—Nearly identical with the Bull-Nose; perhaps somewhat larger. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

PEPPER PLANTS

Sash grown, ready May 15th; field grown, June 5th. Ruby King, Chinese Giant, Crimson Giant, Hot Bull-Nose, Sweet Bull-Nose, Tomato Pepper, Long Red Cayenne.

Sash grown, by express (not prepaid), 500, \$1.75; 1,000, \$3.00.

Per doz., by mail, 25c.; per 100, by mail, 45c.

Field grown, by express (not prepaid), 500, \$1.25; 1,000, \$2.00.

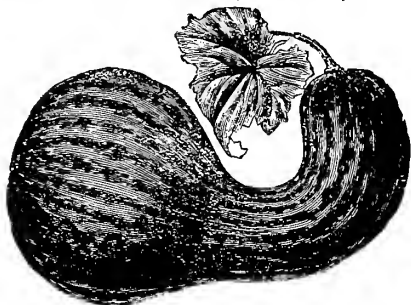
Per doz., by mail, 25c.; per 100, by mail, 45c.

All Plants will be packed in live moss, insuring long shipment. All Express shipments guaranteed to reach destination in good order. No Plants shipped Saturday.

PUMPKIN

Sow in hills eight or ten feet apart each way, or in fields of corn, about every fourth hill; avoid planting near melon or squash vines, as they will hybridize.

Sweet Potato.—Flesh yellow and dry, the very best for family use. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.



Cashaw (Crook Neck)

Cashaw.—Long Yellow Crook Neck, one of the best among Pumpkins; sometimes weigh as much as sixty to eighty pounds. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 75c.

Cheese.—One of the best for table use; shape flat, like a cheese box; flesh yellow and sweet. Oz., 5c.; $\frac{1}{4}$ lb., 10c.; lb., 35c.

Common Field.—Best for cattle feeding. Oz., 5c.; $\frac{1}{4}$ lb., 10c.; lb., 35c.

POTATOES—See page 7

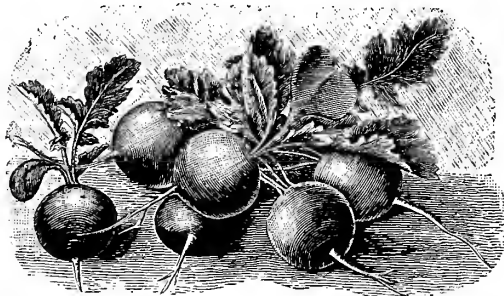
RADISH

Culture.—Radishes must make a rapid growth to be crisp and tender. For early use seed should be sown in the hot-bed, in drills four or five inches apart and half an inch deep. For an early crop in the open ground select a sandy soil and a warm south border, under the shelter of a fence, or building, if possible. A load of fresh sandy loam from the woods is better for the radish crop. As soon as the first leaves appear sprinkle with soot or ashes to save from the little turnip fly. 1 oz. will sow 150 feet of row.

The secret in sowing good radishes consists chiefly in the observance on the part of the grower of three points. First, they should be grown on light, quick soil. Second, they should be given plenty of water, and last, but not by any means least, the right kind of seed should be sown. Radishes grow very quickly, and if not supplied with plenty of water are apt to be pithy.

First Early

White Tipped Scarlet Turnip.—18 days—Fine French variety; scarlet bulb with white tip, very showy and ornamental. An extra early forcing sort. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.



Early Deep Scarlet Turnip Rooted

Early Deep Scarlet Turnip Rooted.—19 days—An improvement on the Red, very smooth and rich dark color. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Early Red Turnip Rooted.—This is the old favorite and there are few that are better. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

French Breakfast.—A bright red, tipped with white, oblong in shape; crisp and tender. Rapid in growth and fine for table. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.



White Box

White Box.—17 days—Fine for forcing or planting in the open ground, short-topped, mild and sweet. A favorite with Philadelphia market gardeners. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

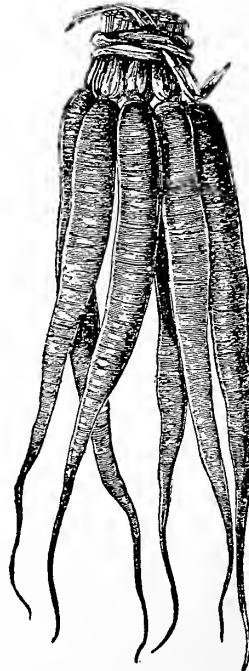
Early White Turnip Rooted.—17 days—Like the Scarlet in shape, but pure white in color; bears the heat well without becoming spongy, a few days later than the scarlet.

Early Scarlet Olive-Shaped.—In form of an olive; fresh rose colored, tender and excellent. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Early Scarlet Globe.—Somewhat larger than the early turnip-shaped varieties, being globular in form, and more of a medium between the early button and the later long sorts.

Is heat-resisting and of a brilliant scarlet color. Very showy. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Second Early



Long Scarlet Short Top (Improved)

Early Long Scarlet Short Top (improved).—The best standard variety for private gardens or market use, is brittle and crisp, and of quick growth; color bright scarlet, small top, and is uniformly straight and smooth. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

RADISH—Continued**White Ladyfinger**

White Ladyfinger—25 days—In shape similar to Long Scarlet Short Top, sweet, mild, and brittle. Annually in greater demand as one of the best long radishes. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

White Summer.—A favorite turnip-shaped variety for the family garden. Round, smooth, crisp and mild. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Icicle.—An extremely early white sort, well adapted for either forcing or open ground; slender and tapering in shape, very mild. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

White Strasburgh.—A very popular variety. Pure white. Of tender quality and remains good for a long while. Matures in 30 to 35 days. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

WINTER RADISHES

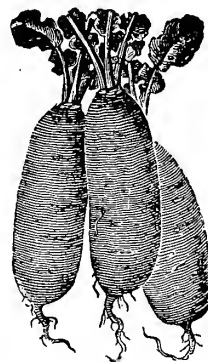
(50 to 75 days, according to variety)

Winter Radishes are not appreciated as much as their merit warrants. They are easily grown, have few insect enemies and can be easily preserved through the winter, and there is no vegetable which furnishes a more acceptable relish. While quick growth is not so essential for these as for the earlier sorts, they do best on a rich soil which has been made as fine and friable as possible. Sow late in spring or during the summer in rows two feet apart and thin the plants about four to the foot. They may be pulled as wanted through the fall and on approach of severe freezing weather should be harvested, part packed in damp sand and store in a cool cellar or other easily accessible, cool place for winter use, and the balance buried in the ground as one would bury potatoes for spring use.

Long Black Spanish.—Winter—One of the latest as well as one of the hardiest of Radishes, and is one of the best for Winter use; roots oblong, black, of large size and firm texture. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Round Black Spanish.—An excellent Round Black Winter variety. Popular among Germans. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 50c.

Long White Spanish Winter.—Differing from the Black Spanish only in color. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

**Scarlet China Winter Radish**

Scarlet China Winter.—Form conical, of a bright rose color, flesh firm and pungent flavor. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

**White China Winter Radish**

White China Winter.—Similar in shape to the preceding, flesh piquant, solid and brittle, an excellent sort for late Fall or Winter use. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

SALSIFY OR VEGETABLE OYSTER

Sow early in the Spring, in deeply dug and richly manured soil, in drills eighteen inches apart. Keep clear of weeds, and when up a few inches, thin out, so as to stand four or five inches apart. This is a hardy vegetable and can remain in the ground all Winter for early Spring use, but should be taken out before they start growing. It is excellent for the table, and can be served as Carrots, or, after being parboiled, may be made into cakes and fried like oysters, which they greatly resemble in flavor.

French.—Produces a tapering straight root about a foot long. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

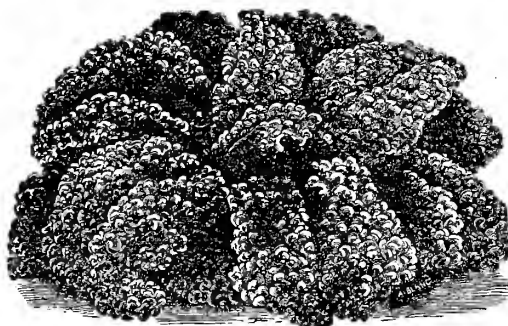
Sandwich Island.—Preferred on account of its larger size, and absence of stringiness. Resembles a good-sized parsnip and is very mild and delicately flavored. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

SPINACH

The spinach is very hardy, wholesome and palatable, and makes a delicious dish for greens. Should be planted in rich ground. Sow in drills one foot apart, and commence thinning out when the leaves are an inch wide. For early spring use, the seed should be sown middle of Autumn, and will require through the Winter a slight protection of leaves or straw. For Spring and early Summer use, sow as early as the ground can be tilled and at short intervals, if a succession is desired. Edible in 40 to 60 days.

Round Leaved Savoy.—(Extra Curled)—This variety is the best and most popular with our market gardeners; leaves large, thick and fleshy, and stands the Winter well. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 25c.

Bloomsdale.—A superior variety of Savoy-leaved Spinach, having a heavy re-curved bloated leaf of symmetrical form. Fine for outdoor planting in spring or fall, or under glass. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 25c.



Norfolk Spinach

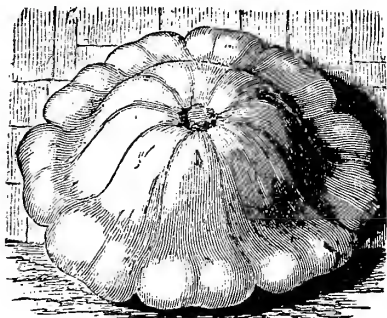
Norfolk.—(Savoy)—Has a very erect habit of growth, and preferred by many on that account. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 25c.

Long Standing.—New large crimped fleshy leaved variety; stands two weeks longer than any other variety before running to seed. Best kind of seed sowing. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 25c.

Victoria.—A mammoth variety of good quality, much used in Europe. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 25c.

SQUASH

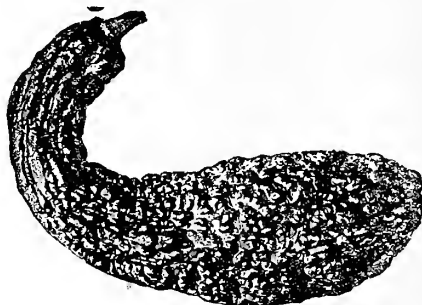
Cultivate same as Cucumbers or Melons. The summer varieties should be planted four or six feet apart each way, and the Winter sorts eight feet. Three plants are sufficient for a hill



Early White Bush (or Patty Pan)

Early White Bush, or Patty Pan.—50 days—The earliest in maturing, and very productive. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 60c.

Early Golden Scallop Bush.—Like the preceding, except being of a golden color. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 70c.



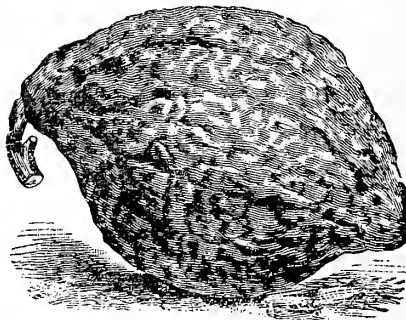
Golden Summer Crookneck

Golden Summer Crook-Neck.—40 days—The best of the Summer squashes, gold color, profusely covered with warty excrescences and of very superior flavor. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 70c.

Italian Vegetable Marrow (or Cocozella).—A large fruited, light green and yellow mottled variety, of oblong shape. Fine for frying, like Egg Plant. Oz., 10c.; $\frac{1}{4}$ lb., 30c.; lb., \$1.00.

Winter Crook-Neck.—Shape like a Cashaw pumpkin. Grown for Winter use; is a good keeper. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 70c.

Boston Marrow (or Squash Pumpkin).—A Fall and Winter variety, very popular, oval form, thin reddish skin; when ripe, bright orange color. Excellent for pies, very sweet, and a heavy cropper. Oz., 10c.; $\frac{1}{4}$ lb., 15c.; lb., 50c.



Hubbard

Hubbard.—A very superior variety, flesh bright orange yellow; dry, sweet and rich flavored, good keeper, boils or bakes exceedingly dry. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 70c.

Fordhook.—A superb variety for pies; it cannot be excelled. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 70c.

TOMATO

Tomatoes do best on light, warm, not over rich soil and success depends upon securing a rapid vigorous unchecked growth during the early part of the season. To have them very early the plants should be started in a hot-bed; transplant carefully, and cultivate well as long as the vines will permit. Tying to a trellis or stakes, improves the quality. Ripen in 85 to 115 days according to variety.

Extra Early (or cluster).—85 days—The earliest variety, and desirable only on that account. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

TOMATO—Continued

Bonny Best—This is a superior early variety, over a week earlier than Earliana, and immensely productive, producing smooth, even-sized, globular shaped fruit, of a rich, bright, scarlet color. Ripens evenly without spots or cracks, and is a valuable addition to the family or Market Garden. Oz., 25c.; $\frac{1}{4}$ lb., 75c.; lb., \$2.50.

Earliana.—One of the new standards of recent introduction ripening ahead of other and later varieties, medium in size, fruit growing in clusters. Very solid, and a good acquisition. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

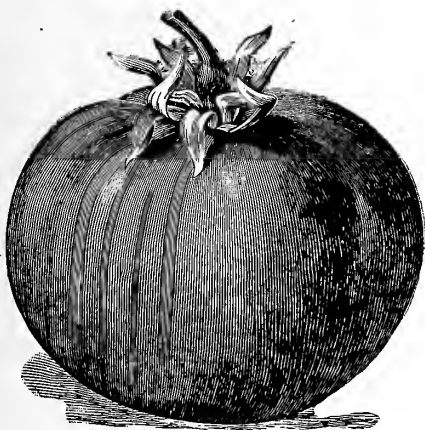
Extra Early Globe.—Almost as early as the Early Cluster, larger and smoother, it is a favorite among truckers, and is a good shipper. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Matchless.—Quite early, vigorous growth, vines large, and productive throughout the season. Fruit dark rich color, slightly below medium size, but always round and smooth. Oz., 20c.; $\frac{1}{4}$ lb., 65c.; lb., \$2.00.

Acme.—105 days—One of the most popular varieties; vines large, and produce abundantly until frost. Fruit in clusters, color maroon or reddish, with slight tinge of purple, invariably smooth and round, of good size and unusually solid, is a good shipper. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Paragon.—Vines large, liberal and productive; fruit large, round, of a dark crimson color, occasionally tinged with purple. The flesh is thick and fine flavored, and taken altogether, it is the best variety yet produced. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Livingston's Perfection.—A handsome new Tomato, so nearly identical with the preceding as to be interchangeable with it. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.



Red Stone

Red Stone.—115 days—A well known and favorite variety, rich color, solid flesh, and desirable in every way. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Livingston's Favorite.—This is the most perfect shaped Tomato in cultivation, is smoother than the Paragon, and does not crack nor rot like the Acme. It ripens evenly, and as early as any good variety; very prolific, good flavor, few seeds, solid, and a good shipper. Oz. 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Queen.—Well known as one of the best; vines of medium size, but producing large quantities of fruit, which is large, smooth, and bright red in color. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Large Red.—An old, reliable variety, resembling the Tilden. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Livingston's Beauty.—115 days—The very latest production of Mr. Livingston, and claimed to be the best; color a bright glossy crimson, slightly tinged with purple, grows in clusters of four or five large fruits, and retains its size until late in the season, and will average more pounds of fruit to the acre than any other variety. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Beefsteak.—One of the best; color maroon, solid flesh, very productive. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

Pear Shaped.—Yellow or Yellow Plum. Used for preserves and pickles; is extraordinarily productive. Oz., 25c.; $\frac{1}{4}$ lb., 75c.; lb., \$2.50.

Red Rock.—A very solid, large, late red variety. Oz., 20c.; $\frac{1}{4}$ lb., 60c.; lb., \$2.00.

TOMATO PLANTS

Ready May 25th.

Improved Stone, Red Rock, Matchless, Success, Bonny Best, Greater Baltimore, Chalk's Early Jewel Dwarf Stone, Sparks' Earliana, My Maryland, Livingston's Beauty, Yellow Egg. By express, (not prepaid), 500, 85c.; 1,000, \$1.50.

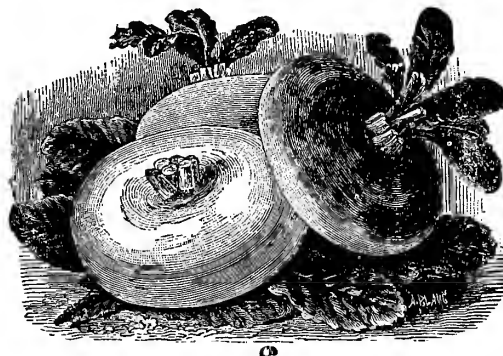
Per doz., by mail, 25c.; per 100, by mail, 50c.

All Plants packed in live moss, to insure long shipment. All Express shipments guaranteed to reach destination in good order. No plants shipped on Saturday.

TURNIP

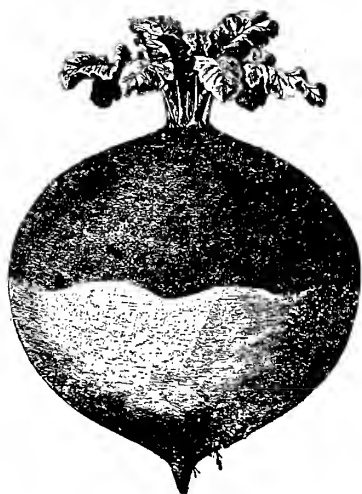
(Maturing from 60 to 90 days according to variety and season.)

Early Flat Dutch.—This is a quick growing, strap-leaved, white variety, resembling the Flat Red Top excepting that its top is white. A favorite sort for either the market or family garden. Has a mild pleasant flavor, and is as desirable in every way as the Red Top Flat. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.



Early Flat Red or Purple Top

Early Flat Red or Purple Top.—(Strap Leaved)—Very similar to the preceding except in color, being purple or dark red on top; form round, flat, with but few leaves, which are of upright growth. This is the standard variety, and there is none better for general purposes. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

TURNIP—Continued**Large Early Red Top Globe**

Large Early Red Top Globe.—Only recently introduced; very attractive, of large size and rapid growth. It is a very heavy producer, and quite as early as the Flat Purple Top. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

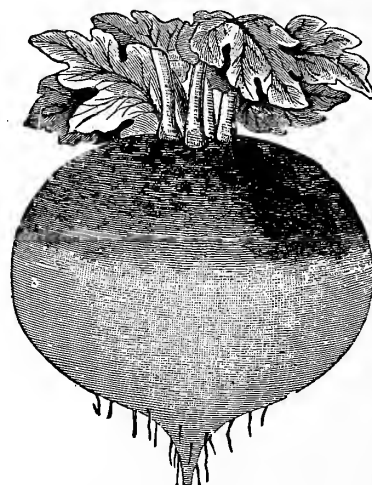
Pomeranean White Globe (Strap Leaved)—A free growing, rough-leaved variety, and very productive; will, frequently, in good rich soil grow to ten or twelve pounds in weight; it is a perfect globe in shape, skin white and smooth. A first rate kind for either table use or stock. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

Cow Horn.—This variety is carrot-shaped, and grows nearly half out of the ground; is pure white, except slight shade of green at top. It is well flavored, of rapid growth, and seems to be increasing in favor every year. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

Yellow, or Amber Globe (Strap-Leaved)—This is one of the best of the rough leaved sorts, for either table use or for stock; yellow, fine grained and sweet; hardy, keeps well, is a good cropper, and grows to a very large size. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

Golden Ball.—A small yellow turnip of second size. Early, and a good keeper. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

Yellow Aberdeen—This is a very nutritious turnip; flesh pale yellow, tender and sugary; is a good keeper, hardy and productive. It is an old favorite, and for stock purposes hard to beat. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

**Improved Purple Top Yellow Swede (Ruta Baga)**

Improved Purple Top Yellow Swede (Ruta Baga)—This is the standard and most important now cultivated for stock purposes; noted for rapid growth, large size and nutritious quality, and cannot be too highly recommended. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

White Fleshed Purple Top Ruta Baga.—This differs mainly from the preceding in color; possesses most of the good qualities of the yellow, but is of slightly milder flavor, is not as valuable for stock as the yellow. Oz., 5c.; $\frac{1}{4}$ lb., 15c.; lb., 40c.

The foregoing comprise about all the desirable varieties for either table or stock use. There are several others which differ from each other more in name than anything else, being in most instances identical in their characteristics. We have not noted them here, but any varieties not named, which our customers may desire, we will cheerfully procure, and at such prices as will compare with any other Catalogue.

AROMATIC AND SWEET HERBS

Basil, Sweet. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

Dill. Oz., 10c.; $\frac{1}{4}$ lb., 20c.; lb., 40c.

Marjoram, Sweet. Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

***Sage.** Oz., 15c.; $\frac{1}{4}$ lb., 45c.; lb., \$1.50.

***Savory, Summer.** Oz., 10c.; $\frac{1}{4}$ lb., 25c.; lb., 75c.

***Thyme.** Oz., 40c.; $\frac{1}{4}$ lb., \$1.25; lb., \$4.00.

Those marked with * are perennial, and when once obtained in the garden, may be preserved for years with a

little attention. Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, or sow in beds in April, and set plants out in June, they should be cut when in bloom, wilted in the sun, and then thoroughly dried in the shade.

MONTHLY GARDENING DIRECTIONS

It would be presumption on our part were we to attempt to lay down hard and fast rules for planting, as, year after year, the seasons vary, so we must content ourselves with stating what "may" be done if weather conditions are favorable. Therefore our directions are suggestive only, leaving it to the planter's own judgment how to act.

These directions are not given as a guide to Truckers or Market Gardeners, who have made planting a business, and have acquired years of practical experience to guide them, but we make them for the guidance of the family kitchen gardener who may wish to start or recently has started a kitchen garden. In this connection we

would repeat what we have always recommended, that every farmer should have his own kitchen garden patch. We know farmers are a busy class, especially if conducting the affairs of the farm on approved and modern scientific principles, but, even with all this, the addition of a family kitchen garden will be found to be a valuable and a good investment. The farmer has the further advantage of using horsepower, thus eliminating the slow process of hand cultivation, and besides, the housewife would take particular pride in its establishment and maintenance.

It is advisable to make out your order for Vegetable seeds upon receipt of this catalogue and send it in before stocks become depleted or prices change (March 1st).

JANUARY

Very little can be done this month in the way of outdoor work. Examine your tools and implements and see that they are in good working order. Barns and other buildings should be cleaned up. Plans should be laid for the coming Spring and Summer seeding and the order made up for Mingle's Vegetable Garden Seeds.

Manure may be hauled to the fields and put where required. **Compost heaps** should be made, compost being pre-eminently the best form of fertilizer for Vegetable Garden crops. Orchards may be pruned and trimmed. **Hedges** trimmed (Evergreens not, however, till frost is over). **Lawns**, (after the leaves have been cleared up) may be top-dressed. Barnyard or stable manure (which often carry weeds) are not to be recommended, where an absolute certainty of freedom from weeds is desired, but instead of these, use Bone Meal (which is much preferable for Grass) or Wood Ashes. **Humus** (see page) may be used to great advantage, as it not only adds desirable chemical qualities to the soil, but aids in conserving the moisture necessary for maintaining a rich, green sward.

Early manuring of the garden patch prevents deep freezing and permits an earlier working of the ground than otherwise.

Rods and poles for Peas and Beans can be made ready.

Asparagus beds top dressed with well-rotted manure forked (not spaded) in, when frost is gone. Salt should also be applied as a top dressing. **Forcing beds** for Lettuce, Radish, etc., require daily attention this month.

Hot beds, for early forcing, may be made ready.

FEBRUARY

This month is still closed to outside gardening operations. **Hot Beds** for forwarding the plants needed next month for transplanting should be made, if not already attended to last month, as they are a valuable adjunct to the garden in desiring an early supply of vegetables. No garden is complete without one. Hot beds should be carefully watched lest they suffer from frost, or, as the weather becomes milder, from sufficient fresh air, or from water. It is important to keep up the proper temperature to insure germination. The following can be started this month: **Lenormands Cauliflower**, **Jersey Wakefield** and **Winnigstadt Cabbage**, **New York Purple Egg Plant** (this requiring more heat), **Big Boston Lettuce**, **Cayenne** and **Ruby King Pepper**, **Red Turnip**, **Scarlet Turnip** and **Scarlet Globe Radish**, **Perfection**, **Red Rock** and **Stone Tomato**. To raise strong and stocky plants in the Hot Bed it is essential, when the outside temperature is not too low, to admit fresh air. The sash should be kept well covered with mats during cold nights.

MARCH

This is the month for active work in the garden, but should Spring open late, the directions given here would better apply to April. This question must therefore be left to the best judgment of the planter. The kitchen gardener may try to emulate his enterprising neighbor, the Trucker, by early seeding or transplanting, but, as the latter's object is to be first in market for highest prices, the kitchen gardener need not take such chances.

Sow Asparagus. Plant **Asparagus Roots**, **Conover's Colossal**. Sow **Early Blood**, **Detroit Dark Red Beet**, **Early Jersey Wakefield**, **Early Summer Cabbage**, **Danvers Half Long Carrot**, **Lenormands Cauliflower** (look after those under glass), **Half Dwarf** and **Golden Heart Celery**, **Curled Cress**, **Yellow Globe Danvers**, **Silver Skin** and **Red Wethersfield Onion Sets**.

To grow large onions from seed, sow in latter part of this month, in good soil. Prize taker (a large yellow Italian sort), what are more generally used, **Large Yellow Globe Danvers** and **Red Wethersfield**.

First and Best Mingle's Ameer and **Premium Gem Peas**, **Sugar Parsnip**, **Early Rose** and **Irish Cobbler Potatoes**, **White Ladyfinger** and **Summer White Radish**, **Round Savoy Leaved Spinach**, **Sage**, **Red Top Flat** and **Red Top Glove Turnip**, Prepare Compost for later hot beds. Form new **Asparagus beds**.

Lawns will demand attention this month, and should be put in order, old leaves and dead grass removed. If new **Lawns** are to be made we will take pleasure in mailing directions to all applicants. Always use Mingle's Velvet Lawn Grass, carefully prepared by the oldest and most reliable Grass Seed House in the State.

APRIL

This is the busy month for the gardener. What could not be done last month, owing to unfavorable weather conditions, must be done now. Plants from the February Hot Bed are now ready to be set out. Yet, even this month, much judgment must be used in setting out plants in the open, that will withstand the cold nights, such as **Cabbage Plants**, whilst **Tomato Plants** would not.

Beds of Asparagus and other permanent plants should be manured and dressed, using the spading fork. Plant roots of **Conover's Colossal** or sow the seed if not already done last month. To secure an uninterrupted supply of full-sized cuttings it should be the aim of the planter to have several beds in various stages of advancement.

Plant **Early Blood**, **Detroit Dark Red Beet**, **Swiss Chard** or **Silver Beet**, of which only the leaf stalk is used. Plainly cooked or pickled, would be more generally used if better known. It is esteemed a delightful dish by those who know it. **Bush**, or **Snapshot Beans**, may be sown in

a sheltered location about the middle of this month. For early varieties, plant **Extra Early Red Valentine**, **Stringless Green Pod** and **Golden Wax**.

Lenormands Cauliflower can be transplanted from Hot Bed. These plants are partial to a saline and moist atmosphere. Sow, in a sheltered spot **Large Late Flat Dutch** and **Large Late Drumhead Cabbage**, which produce fine, hard and symmetrical large heads ripening uniformly. Sow plenty of seed, for the fly will have its share, and plenty should be provided for Autumn use. The early Spring sorts still in the Hot Bed can now be planted out. Sow **Chantenay**, **Orange Danvers**, **Half Long** and **Long Orange Carrot**, the latter for main crop. **Half Dwarf**, **Golden Heart**, **Golden Self-Blanching** and **Large White Solid Celery**. Sow **Curled Cress**. Sow **White Spine** and **Long Green Cucumber** in a sheltered spot, when the ground is warm. Transplant **Egg Plant** and **Tomato** from Hot Bed, and make another sowing for later crop. Sow **Leek**. Sow and transplant from Spring and Winter beds **Big Boston**, **Simpson** and **White Dutch Butter Lettuce**. Sow **Melon**, in shelter, also **Nasturtium**. Plant **Onion Sets**, **Large Yellow Globe Danvers**, **Silver Skin** and **Red Wethersfield**. For growing full-sized Onions direct from the seed the same year, sow **Red Wethersfield**, **Globe Danvers** and **Prizetaker**.

Sow **Curled Parsley** and **Sugar Parsnip**. Peas are a valuable crop in the garden, and for a succession may be sown every few weeks during the season. Plant **Mingle's First and Best**. This is extra early and ahead of all others in maturity; it is very prolific and of fine flavor. Plant also **Gradus**, **Thomas Laxton**, **American Wonder**, **Nott's Excelsior** and **Telephone**. These are among the best of wrinkled sorts. Transplant **Peppers** from frames. Our supply of **Potatoes** is drawn direct from Maine, and is carefully selected for seeding only. We offer, for this month's planting, the following early sorts: **Early Rose**, **Houlton Rose**, and **Irish Cobbler**. Of **Radish** continue sowing **Red Turnip**, **Scarlet Turnip**, **White Box**, **Scarlet Globe**, **White Ladyfinger** and **White Strasburgh**. Sow these as early as possible to prevent pithiness. Sow **Salsify** or **Oyster Plant**, a vegetable too often overlooked in the garden. Sow **Sweet Marjoram** and **Red Top Flat**, **Red Top Globe**, **Amber Globe**, **Cowhorn** and **Rutabaga Turnip**.

MAY

This is the month when weeds will make their appearance and active measures must be taken to eradicate them. Keep your cultivator and hoe well at work. What has not been done last month must not be overlooked now. Cultivate and thin out the vegetables that have been planted or transplanted last month. Should seed beds show any bare spots these must be re-seeded at once. Give air and water to your plants in frames, and harden off the plants before transplanting. The more delicate seeds may now be sown, as the ground has become warmer, and the atmosphere milder.

Plant **Lima Beans**, but only if the soil is warm. Also plant **Bush** or **Snapshots** for a succession, **Extra Early Red Valentine**, **Stringless Green Pod**, **Golden Wax** and **Fordhook Bush Lima**. The latter is in such high favor that the demand has exceeded the supply the last few years. Orders for same should therefore be forwarded us early. Plant **Pole Beans**, **Horticultural**, **Kentucky Wonder** and **Lazywife**. Sow **Half Long Blood** and **Long Blood Beet**. Sow **Long Red Mangrel Wurzel**, **Golden Tankard Mangel Wurzel** and **Sugar Beet** for stock feeding, the return per acre being enormous.

Sow **Large Late Flat Dutch** and **Large Late Drumhead Cabbage** if not sown last month. If sown last month the plants will now be large enough to transplant. Select only the stockiest plants, leaving the others for further developments. Sow **Orange Danvers Half Long**, **Chantenay Half Long** for table and **Long Orange** for stock feeding. Give plenty of water to the **Cauliflower** sown last month, and remove the glass if the weather is mild. Sow **Golden Heart**, **White Plume**, **Golden Self-Blanching** and **Large White Celery** and weed the **Celery** sown last month. Plant **Country Gentleman**, **Golden**

Bantam, **Early Evergreen**, **Early Mammoth**, **Shaker** and **Shoe Peg Sugar Corn**. Any of the **Cucumbers** may now be sown. **Dwarf Green Pickle**, **Long Green**, **White Spine**. Sow **Kohlrabi**, a most favorite dish among the Germans. Sow **White Dutch Butter** and **Big Boston Lettuce** in drills and thin out the plants to four inches apart. Plant **Rocky Ford**, **Burrell's Gem** and **Fordhook Cantaloupe Melon**. The latter is a fine yellow fleshed sort. Plant **Kleckley's Sweets**, **Tom Watson**, **Kolb Gem** and **Long Light Icing Watermelon**. Sow **Parsnip** for early crop, or thin out previous sowing if ready. Plant **Peas** deeper this month to protect the roots from drought during the summer. Plant **Thomas Laxton**, **American Wonder**, **Nott's Excelsior**, **Telephone**. Repeat sowings of seeds that have failed to respond last month. Plant **Peppers**.

JUNE

Weeds will this month come to the front, and the planter will have to exert all his efforts to keep them down with the free use of the hoe or cultivator. The latter is by far the best, as the work is more quickly and thoroughly done. The implement very soon pays for itself. The process is of double benefit. Not only are the weeds destroyed, but the soil is stirred up and aerated and lightened for the reception of air and moisture, permitting the plants to draw their proper nourishment from the soil.

Free your **Asparagus** beds from weeds, and cut away all seed-bearing stalks, to strengthen the roots. Plant **Bush** or **Snapshots Beans** every two weeks for a succession, **Extra Early Red Valentine**, **Stringless Green Pod** and **Golden Wax**. Replace any **Lima** or **Wax Beans** that have failed to come up. Limas do better when started in cold frames or placed between sods and transplanted. They are not partial to a cold or moist atmosphere. **Bugs** will appear in abundance this month and must be exterminated. We have the various remedies for this purpose. See the article on "Insecticides" in our Catalogue. Thin out **Beet** and sow **Detroit Dark Red** for a succession. Thin out **Mangel Wurzel Beets** and thoroughly cultivate them to make the crop a success. Transplant **Cabbage** sown in May for September and October maturity. Transplant **Celery** for early use, seeing that the trenches have first placed in them a layer of well-rotted manure. Keep the plants well watered, especially in dry season. Repeat your sowing of **Cucumber**, **White Spine** and **Long Green**. The **Dwarf Green Pickle** for early use can be planted later this month. Plant **Sugar Corn** every two weeks for a succession, ***Stowell's Evergreen**, **Early Mammoth** and **Country Gentleman**. Sow **Endive** for transplanting later. **Leek** thin out and transplant. Plant **Squash**. Train **Tomatoes** to trellises or poultry wire, as by this treatment the vines bear more abundantly. Vines growing too rank or too strong bear better when pinched back. Sow **Purple Top Yellow Ruta Baga Turnip** from latter end of this month until latter part of July. The roots make excellent feed and are much relished by stock. The **Turnip Fly** is very destructive to the young plants, but, should it make its appearance, dust the young plants with plaster.

JULY

The hot days of this month are not much of an inducement to active labor in the garden, yet much remains to be done and must be done in the way of transplanting, weeding and looking after injurious insects, which now abound. **Weeding**, in particular, should be given constant attention, or weeds will gain the upper hand. Ground where other crops have been grown, and which is now free, can be prepared for later sowings. Moisture can be conserved by compacting the soil with a spade, or even by tramping. Keep **Beets** thinned out and clear of weeds. **Early Blood** and **Half Long Blood** may be sown for late Winter and Spring use. **Long Blood Beet**, **Sugar Beet** and **Mangel Wurzel** may still be planted the first of this month. A moist day should be selected for setting

out Cabbage planted for late use. The roots require damping before planting, as this insures their proper growth. Thin out **Carrot** and cultivate. Set out **Celery**, trimming off the tops as usual. Plant **Country Gentleman**, **Early Mammoth** and **Stowell's Evergreen Sugar Corn** for a succession. Plant **Jersey Pickle Cucumber**. **Egg Plant** should be watered with liquid manure. Peas may still be planted, but success with them is not assured. Keep **Tomato vines** raised from the ground, to prevent rotting the fruit. Expose the fruit to sun and air. Sow **Endive**. Cultivate your vines, such as **Melon**, **Squash**, **Cucumber**. Squash and other bugs also need looking after. Thin out **Turnips** and **Ruta Baga** sown last month. They may still be planted this month. Sow **Red Top Flat**, **Red Top Globe** and **Amber Globe**. Turnips are easy to raise and no garden should be without them.

AUGUST

During this month sowings can yet be made of early maturing crops, such as **Peas**, **Beans**, **Corn**, **Corn Salad**, **Kale**, **Lettuce**, **Spinach**, **Radish** and **Turnip**. Thin out **Beets**, if needed, and cultivate well. **Turnip** sowing now comes to the front, and should be finished by the 25th of this month. Sow the globe-shaped varieties early in the month. The flat varieties can be sown as late as the early part of September, but the latter part of August is better. Sow plenty of seed, because the **Turnip Fly** (as we stated elsewhere) will have its share and, if they appear, dusting with plaster must be resorted to. **Cabbage** for late Winter Use may still head, if planted at once. Earth up the early plantings of **Celery**, and if necessary water the later sowings and plant more for future use. Plant **Snapshot Beans**, **Red Valentine**, **Refugee** and **Stringless Pod**. Sow **Corn Salad** and **Curled Kale**. Plant **Endive**. Sow **White Dutch Butter** and **Big Boston Lettuce** in drills for later heading. Plant **Mingle's Extra Early** and **First and Best Peas** the latter part of this month, as late varieties planted this month may not succeed. Sow **Scarlet Turnip**, **White Summer**, **Scarlet Globe**, **Scarlet** and **White China Winter Radish**. Sow **Round Savoy Leaved Spinach** for Autumn use.

Thin out the foliage of **Tomato vines**, opening them up to sun and air.

SEPTEMBER

This month **Root Crops** are to be harvested and **Winter** protection given to other crops. Growing crops will, however, still require attention. **Cabbage**, **Cauliflower** and **Lettuce Plants** for the following Spring planting should now be provided for. About the middle or latter part of this month, sow **Large Jersey Wakefield Cabbage**. On approach of cold weather store the plants in cold frames for early Spring transplanting. Sow also **Cauliflower** for late transplanting, to head in cold frames for Winter and Spring heading; or store like **Cabbage** for planting out. Sow **Red Top Flat Turnip** in early part of this month, if not sown before. The **Fly** will now be less destructive. Cultivate **Turnips** and **Ruta Baga**. Earth up **Celery**. Tie up **Endive**, for blanching. Sow **Corn Salad**, **Kale** and **Spinach** for early Autumn use, or to stay out all Winter. Sow **Winter Dutch Butter** and **Big Boston Lettuce**. These can also be transplanted into cold

frames for early Winter and Spring use, or transplanted to the garden and protected.

The preparation of the ground for Lawns will now demand attention and should not be neglected this month. As the foremost and oldest Grass Seed House in Pennsylvania we enjoy the reputation of putting up the finest and best mixture that can be had in Mingle's Velvet Lawn Grass. (See catalogue page 3.) Detailed directions on "The Making and Keeping of a Lawn" will be sent upon application.

OCTOBER

Whilst the labors of sowing and planting in the garden are practically over, much remains to be done in other directions. Growing crops are to be protected. **Root crops** are to be harvested. Store **Beets** and **Carrots**. Plant out **Cabbage** in sheltered spot or store into cold frames for Spring the **Cabbage** sown last month. **Lettuce** transplant into cold frames for Winter and Spring heading. Dress **Asparagus beds**. Give your **Celery** the last earthing up. Transplant **Cauliflower** into forcing frames for Spring. Sow **Spinach**, the **Round Savoy Leaved** and the **Bloodsdales**. **Lettuce** and **Globe Radish** may be sown in cold frames. **Potatoes** dig. Trench all vacant ground for next Spring's use.

NOVEMBER

It is now in order to continue the various gardening operations, outside of planting, that claim attention. Give air to your plants in frames. Gather in all **Root Crops** and store them in the cellar or in pits outside. **Cabbage** sown in September for Spring use should be put in cold frames at once. **Cabbage** that has formed heads place in trenches and protect for Winter. Collect and store for Winter your **Beets**, **Celery**, **Carrots** and **Turnips**. **Parsnip** and **Salsify** are also to be taken out. Winter dress your **Asparagus beds**.

DECEMBER

Very little can now be done owing to the severe weather now due. Look after **Forcing** and **Cold Frames**. **Lettuce** may be transplanted and other **Radish** sown. This month the gardener has more leisure to lay his plans for the future and make up his order for **Mingle's Vegetable Garden Seeds**. In looking over this Catalogue carefully it will be found that we confine ourselves mainly to the standard, well-tried sorts. Novelties are all right for those who wish to try them, but the gardener who expects sure returns will prefer the older, well-tried sorts.

The farmer also may this month prepare for the larger operations of the coming Spring and Summer. We offer the very best that can be had in the way of extra fine re-cleaned seeds of **Clover**, **Grass**, **Timothy** and other **Field Seeds**. **Corn**, **Wheat**, **Rye**, **Oats**, **Buckwheat** and other grains for planting as well as feeding. Nor is the Poultry and Pigeon raiser overlooked.

Examine our Catalogue carefully and send in your order early.

FLOWER SEEDS

Price 5c. per packet

A fine selection of the most popular and desirable varieties.

Ageratum—(Floss Flower)—Mixed Double (Blue and White).—One of the very best bedding plants from early Summer till frost; used also for borders, or planted with geraniums, coleas and cannas.

Alyssum—(Little Gem).—Fine for beds or edging in Summer, or pots and boxes in Winter. Will bloom the entire season, until hard frost.

Aquilegia (Columbine)—Mixed Double — Flowers beautifully in Spring, the flowers rising 2 feet above the fernlike foliage. Used for cut flowers.

Antirrhinum (Snap Dragon)—Mixed Dwarf—This is one of our finest perennials. If planted early, will flower the first year as an annual. The flowers are brilliant and beautifully marked; fine for cutting.

Aster—Mixed Double Dwarf—White, Pink and Blue.—Easily raised from seed and make attractive Autumn-flowering border plants.

Balsam—Mixed Double (Red and White)—Summer and Autumn flowering annuals. Require rich sandy loam, and should be kept well watered.

Calendula (Marigold)—Dwarf Yellow—Flower a beautiful bright yellow, in profusion. A handsome border plant.

Campanula (Canterbury Bell)—Mixed Double (Red, White and Rose)—An old-fashioned favorite with all. Of easy growth and showy. A hardy biennial.

Centaurea (Cornflower)—Dark Blue—Of easy culture. Abundant bright flowers. Sow early outdoors and thin plants to 6 or 8 inches, or raise in boxes indoors and transplant when large enough.

Chrysanthemum—Mixed Double—(White and Yellow)—Showy annuals. Extensively grown for cut flowers. The hardy annuals are Summer flowering, border plant; quite distinct from the hardy perennial or Autumn flowering varieties.

Cosmos—Mixed—(Red, Pink & White)—Beautiful Autumn blooming plants. Flowers a beautiful pure white, pink and crimson, furnishing an abundance of cut blooms for Autumn decoration.

Dahlia—Mixed Double Dwarf—The Dahlia is an interesting flower to raise from seed. The flowers are beautiful and hardy. Fine for bouquets. Start indoors from February to May, and transplant.

Delphinium (Larkspur)—Mixed—This is one of the best known garden flowers. By careful attention to selection and cultivation much improvement has been made in color and size.

Dianthus—Mixed Double Carnation.—This is one of the most popular flowers in cultivation, producing a great variety of beautiful colors and profusion of bloom. May be sown in the open when danger from frost is passed.

Dianthus Barbatus (Sweet William)—Mixed. Carnation Pink, Pigotee Pink.

Digitalis (Foxglove)—Mixed—Highly ornamental and handsome plants, of stately growth. Thrives best in half shady places. Height, three to five feet.

Heliotrope (Cherry Pie)—Mixed Double—This is a half-hardy perennial, flowers the whole season, and has a fragrant perfume. A fine bedding plant, and much used for bouquets. Start seeds indoors in Spring for plants for Summer blooming.

Hollyhock—Mixed Double—(White & Cherry)—A most majestic hardy plant, giving a pleasing effect in any garden. Usually planted among shrubbery, or to give a background for other flowers.

Lupins—(Mixed Perennial)—The flowers are pea-shaped. Should be planted in half-shady locations. Bloom in July and August. Excellent for cutting.

Mirabilis Jalapa (Marvel of Peru or Four O'Clock)—Mixed Dwarf (White and Yellow)—A popular free flowering garden sort. Thrives in every garden. Plant 1 to 1½ feet apart.

Myosotis (Forget-Me-Not)—Blue and White—Succeeds best in a shady, moist situation. Permanent and hardy, if given a slight protection through the Winter.

Nasturtium—Mixed—Our Dwarf varieties are selected from the largest and most beautiful flowering stock. Our tall varieties cannot be excelled as handsome climbers for trellises and verandahs. The seed when still green may be used for pickling.

Dwarf Mixed, per lb., 80c.; ¼ lb., 30c.; oz., 10c.; pkt.

Tall Mixed, per lb., 60c.; ¼ lb., 20c.; oz., 10c.; pkt.,

Nigella (Love in a Mist, or Devil in the Bush)—Miss Jekyll—A superb variety, with corn-flower blue blossoms. Splendid for cutting.

Pansy—Mixed—Plant or start the seeds early in August for early Spring blooming. The plants are thus better fitted to winter over.

Plant early in Spring not later than April in an open location. The ground should be well prepared and manured.

Papaver (Poppy)—Mixed Double—Sow very thinly as early in Spring as possible, where they are to remain, as they will not stand transplanting.

Petunia—Mixed Double—A beautiful flowering plant well adapted either for outdoor or house culture. Begins to flower early, and continues so the whole season.

Phlox—Mixed—One of the best known garden annuals. Brilliantly colored flowers, selected from the best strains. Will grow anywhere in a sunny location.

Portulaca (Sun Plant)—Mixed Double—Yellow and White—The plants are easy to cultivate, are hardy, and thrive best in a light, well-prepared, sandy soil. The flowers are beautifully colored and produced in plenty. Mostly used in bedding, borders or rock work.

Primula—Japonica—Compact dwarf plants, with dense heads of fine large flowers.

Reseda (Mignonette)—Marchot—A popular favorite. Should be in every garden. To secure a succession from early Summer till frost sow in April, and again in July.

For winter and early Spring flowering, sow the seed in pots.

Salvia (Flowering Sage)—Zurich—The well known scarlet flowered bedding plant, blooms from July till frost. Blooms the first year from seed sown early in hot beds or indoors, and transplanted when the weather becomes warm enough.

Sweet Peas (Lathynes Odoratus)—Mixed—The flowers of the Sweet Peas are among the most useful and beautiful of our hardy annuals. We offer our Special Selections of seed of these popular flowers, including only seeds of the brightest and largest flowering, free blooming, long stemmed sorts. All colors mixed.

Extra Selection, per lb., \$1.00; ¼ lb., 30c.; oz., 10c.; pkt.,

Choice Selection, per lb., \$1.50; ¼ lb., 40c.; oz., 15c.; pkt.,

Verbena Hybrida—Mixed—(Yellow, Blue and White)—Flowers large and brilliant. Selected seed, from the best blooming sorts. Sow early indoors or in hot bed, and transplant in May, or sow in the open in May, for July blooming.

Zinnia (Youth and Old Age)—Mixed Double—(White and Yellow)—An annual of handsome and brilliant appearance. Sow early, indoors or in hot-bed, and transplant. The bloom continues throughout the Summer.

USEFUL TABLES

Table Showing the Weight of Various Articles.

Barley	per bushel, 48 lbs.
Beans	per bushel, 60 lbs.
Buckwheat	per bushel, 48 lbs.
Broom Corn	per bushel, 46 lbs.
Blue Grass	per bushel, 14 lbs.
Clover Seed	per bushel, 60 lbs.
Corn, shelled	per bushel, 56 lbs.
Corn, on the ear	per bushel, 70 lbs.
Flax Seed	per bushel, 56 lbs.
Hemp Seed	per bushel, 40 lbs.
Hungarian Grass Seed	per bushel, 48 lbs.
Millet	per bushel, 50 lbs.
German Millet	per bushel, 50 lbs.
Oats	per bushel, 32 lbs.
Onion Sets	per bushel, 32 lbs.
Orchard Grass	per bushel, 12 lbs.
Perennial Rye Grass	per bushel, 20 lbs.
Peas	per bushel, 60 lbs.
Vetches	per bushel, 60 lbs.
Red Top Grass Seed	per bushel, 10 lbs.
Rye	per bushel, 56 lbs.
Spinach	per bushel, 40 lbs.
Timothy Seed	per bushel, 45 lbs.
Top Onions	per bushel, 28 lbs.
Turnips	per bushel, 55 lbs.
Wheat	per bushel, 60 lbs.

Quantity of Seed Usually Sown Upon an Acre.

Barley, broadcast	2 to 3 bushels
Beans, Dwarf, in drills	1½ bushels
Beans, Pole, in hills	10 to 12 quarts
Beets in drills	5 to 6 pounds
Broom Corn, in hills	8 to 10 quarts
Buckwheat	1 bushel
Cabbage in beds, to transplant	¼ pound
Carrots, in drills	3 to 4 pounds
Corn, in hills	8 to 10 quarts
Corn, for soiling	3 bushels
Cow Peas	½ to 2 bushels
Cucumber, in hills	2 pounds
Flax, broadcast	1½ bushels
Hemp	1½ bushels
Mustard, broadcast	½ bushel
Melon, Musk, in hills	2 to 3 pounds
Melon, Water, in hills	4 to 5 pounds
Mustard, broadcast	½ bushel
Onion, in drills	5 to 6 pounds
Onion, for sets in drills	30 pounds
Onion sets, in drills	6 to 12 bushels
Parsnips, in drills	4 to 6 pounds
Peas, in drills	1½ bushels
Peas, broadcast	3 bushels
Potatoes, cut tubers	10 bushels
Pumpkin, in hills	4 to 6 pounds
Radish, in drills	8 to 10 pounds
Rye, broadcast	1¾ to 2 bushels
Sage, in drills	8 to 10 pounds
Salsify, in drills	8 to 10 pounds
Spinach, in drills	10 to 12 pounds

Squash, bush varieties, in hills	4 to 6 pounds
Squash, running, in hills	3 to 4 pounds
Sugar Cane or Sorghum	12 quarts
Tomato, to transplant	¼ pound
Turnip, in drills	½ to 2 pounds
Turnip, broadcast	3 to 4 pounds
Vetches, broadcast	30 pounds
Wheat, broadcast	1½ to 2 bushels

Grass Seeds to the Acre.

White Clover	10 pounds
Red Clover	10 to 15 pounds
Alfalfa or Lucerne Clover	20 pounds
Alsike Clover	12 pounds
Crimson Clover	12 to 15 pounds
Timothy	12 pounds
Hungarian Grass	1 bushel
Pasture Grass	2½ to 3 bushels
Blue Grass	½ to 3 bushels
Rye Grass	1½ to 2 bushels
Orchard Grass	1½ to 2 bushels
Red Top Grass	1½ to 2 bushels
Mixed Lawn Grass	5 bushels
Millet	1 bushel

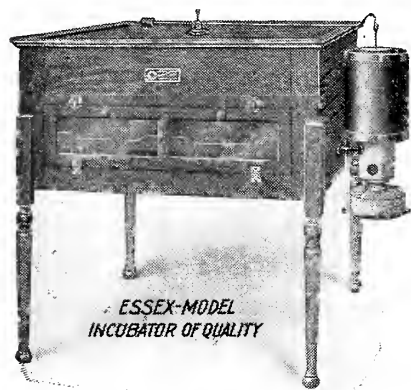
Number of Plants to the Acre.

Distance Apart	No. of Plants
1 foot by 1 foot	43,560
1½ foot by 1½ foot	19,360
2 feet by 1 foot	21,780
2 feet by 2 feet	10,890
2½ feet by 2½ feet	6,969
3 feet by 2 feet	7,260
3 feet by 3 feet	4,840
4 feet by 4 feet	2,178
5 feet by 5 feet	1,742
6 feet by 6 feet	1,210
8 feet by 8 feet	680
10 feet by 10 feet	435
12 feet by 12 feet	302
15 feet by 15 feet	193
18 feet by 18 feet	134
20 feet by 20 feet	109
25 feet by 25 feet	70
30 feet by 30 feet	48

Number of Plants Produced From an Ounce of Seed.

	Plants
Asparagus	about 500
Broccoli	" 2,000
Cabbage	" 2,000
Cauliflower	" 2,000
Celery	" 3,000
Egg Plant	" 1,000
Endive	" 3,000
Kale	" 2,000
Leek	" 1,000
Lettuce	" 3,000
Pepper	" 2,000
Tomato	" 3,000
Sage	" 1,000
Thyme	" 5,000

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are Incubators of quality, and are guaranteed to be automatic in the regulation of heat and ventilation. This is secured by superior construction, and by the use of the Essex Model Corrugated Thermostat (Patented) which is more sensitive and quicker to respond to changes of temperature than any other. A beginner can operate the Essex Model, because it is simple in construction and built per-

fect in principle, no previous experience being required. It will hatch strong and healthy chicks more successfully than any other make of machine on the market.

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- No. 2 Standard Incubator holds 275 eggs, price \$32.00.
- No. 3 Standard Incubator holds 410 eggs, price \$37.00.
- No. A Middle Price Incubator holds 70 eggs, price \$11.00.
- No. B Middle Price Incubator holds 120 eggs, price \$14.00.
- No. C Middle Price Incubator holds 200 eggs, price \$18.50.
- New Homestead Incubator holds 70 eggs, price \$6.90.
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- Essex Model Colony Brooder, Style A, price \$12.50.
- Essex Model Colony Brooder, Style C, price \$18.50.
- Essex Model Improved Chick Comfort Hover, price \$8.50.
- Essex Model Single New Homestead Brooder, price \$7.50.

MULFORD NITRO-GERM



UNINOCULATED ALFALFA INOCULATED

Photographed on (same scale). Plant on left not inoculated—Plant on right inoculated with **The Mulford Nitro-Germ**. All other conditions identical. The contrast speaks for itself.

MULFORD NITRO-GERM—To successfully grow ALFALFA, CLOVERS, COW PEAS, SOY BEANS, VETCHES and other legumes, to increase your yield, and to improve your soil, use the **MULFORD NITRO-GERM**, scientifically prepared and tested. Small cost—large returns—easy to use—no labor nor expense.

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